

# **WARNING**

## **THIS CONTRACT INVOLVES HAZARDOUS MATERIAL**

NSN: TBD

DOD HAZARDOUS CLASS/DIV: 1.1D

UNO SERIAL NUMBER: 0408

DOT Container Marking:

PSN: Fuzes, Detonating

UN: 0408

Packing Method:

PI-141

DOT Label:

Explosive 1.1D

(Title of End Item and IFB, RFQ, RFP'S, ETC or Contract Number)

EX 437 Multi-Option Fuze Navy (MOFN)

N00178-03-R-3065

**FIRMS MUST HAVE ADEQUATE FACILITIES  
FOR HANDLING AMMUNITION, EXPLOSIVES,  
or other unique military related dangerous material  
involved that could adversely affect personnel and  
property in the event of explosion, fire or exposure. Prior  
to contract award, the Government will thoroughly  
investigate the ability of prospective contractor to comply  
with safety requirements. A Pre-Award Safety and Security  
Survey will be required prior to contract award.**

**INFORMATION TO OFFERORS OR QUOTERS**  
**SECTION A - COVER SHEET**

*Form Approved*  
*OMB No. 9000-0002*  
*Expires Sep 30, 2000*

The public reporting burden for this collection of information is estimated to average 35 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (9000-0002), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS. RETURN COMPLETED FORM TO THE ADDRESS IN BLOCK 4 BELOW.**

1. SOLICITATION NUMBER  N00178-03-R-3065	2. (X one)	3. DATE/TIME RESPONSE DUE  28 February 2003 - 2:00 P.M.
	<input type="checkbox"/> a. INVITATION FOR BID (IFB)	
	<input checked="" type="checkbox"/> b. REQUEST FOR PROPOSAL (RFP)	
	c. REQUEST FOR QUOTATION (RFQ)	

**INSTRUCTIONS**

**NOTE:** The provision entitled "Required Central Contractor Registration" is applicable to most solicitations.

1. If you are not submitting a response, complete the information in Blocks 9 through 11 and return to the issuing office in Block 4 unless a different return address is indicated in Block 7.
2. Responses must set forth full, accurate, and complete information as required by this solicitation (including attachments). "Fill-ins" are provided on Standard Form 18, Standard Form 33, and other solicitation documents. Examine the entire solicitation carefully. The penalty for making false statements is prescribed in 18 U.S.C. 1001.
3. Responses must be plainly marked with the Solicitation Number and the date and local time set forth for bid opening or receipt of proposals in the solicitation document.
4. Information regarding the timeliness of response is addressed in the provision of this solicitation entitled either "Late Submission, Modification and Withdrawal of Bid" or "Instructions to Offerors - Competitive Acquisitions".

4. ISSUING OFFICE (Complete mailing address, including ZIP Code) Contracting Officer Attn: XDS105/Bldg 183/1st Floor/Rm 133 NAVSURFWARCEN Dahlgren Division 17320 Dahlgren Road, Dahlgren, VA 22448-5100	5. ITEMS TO BE PURCHASED (Brief description)  CONVERSION OF US ARMY MOFA FOR US NAVY APPLICATION (EX437)
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6. PROCUREMENT INFORMATION (X and complete as applicable)	
<input checked="" type="checkbox"/> a. THIS PROCUREMENT IS UNRESTRICTED	
b. THIS PROCUREMENT IS _____	% SET-ASIDE FOR SMALL BUSINESS. THE APPLICABLE SIC CODE IS: _____
c. THIS PROCUREMENT IS _____	% SET-ASIDE FOR HUB ZONE CONCERNS. THE APPLICABLE SIC CODE IS: _____
d. THIS PROCUREMENT IS RESTRICTED TO FIRMS ELIGIBLE UNDER SECTION 8(a) OF THE SMALL BUSINESS ACT.	

7. ADDITIONAL INFORMATION
---------------------------

8. POINT OF CONTACT FOR INFORMATION	
a. NAME (Last, First, Middle Initial) XDS13 BRANCH	b. ADDRESS (Include ZIP Code) Contracting Officer NAVSURFWARCEN Dahlgren Division 17320 Dahlgren Road Dahlgren, VA 22448-5100
c. TELEPHONE NUMBER (Include Area Code and Extension) (540)653-7094	d. E-MAIL ADDRESS xds13@nswc.navy.mil

9. REASONS FOR NO RESPONSE (X all that apply)	
<input type="checkbox"/> a. CANNOT COMPLY WITH SPECIFICATIONS	<input type="checkbox"/> d. DO NOT REGULARLY MANUFACTURE OR SELL THE TYPE OF ITEMS INVOLVED
<input type="checkbox"/> b. UNABLE TO IDENTIFY THE ITEM(S)	<input type="checkbox"/> e. OTHER (Specify)
<input type="checkbox"/> c. CANNOT MEET DELIVERY REQUIREMENT	

10. MAILING LIST INFORMATION (X one)	
WE <input type="checkbox"/> DO <input type="checkbox"/> DO NOT DESIRE TO BE RETAINED ON THE MAILING LIST FOR FUTURE PROCUREMENT OF THE TYPE INVOLVED.	

11a. COMPANY NAME	b. ADDRESS (Include ZIP Code)
c. ACTION OFFICER	
(1) TYPED OR PRINTED NAME (Last, First, Middle Initial)	(2) TITLE
(3) SIGNATURE	(4) DATE SIGNED (YYYYMMDD)

<b>SOLICITATION, OFFER AND AWARD</b>			1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING <b>DO-A7</b>	PAGE OF PAGES 1 88	
2. CONTRACT NUMBER		3. SOLICITATION NUMBER <b>N00178-03-R-3065</b>		4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED <b>15 Jan 2003</b>	
7. ISSUED BY Contracting Officer, Naval Surface Warfare Center, Dahlgren Div 17320 Dahlgren Road Dahlgren, VA 22448-5110				8. ADDRESS OFFER TO (If other than Item 7) <b>SAME</b>			

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

### SOLICITATION

9. Sealed offers in original and 1 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Bldg. 183, Room 133 until 2:00 P local time 28 February 2003  
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME <b>G. R. Vaughan</b>	B. TELEPHONE (NO COLLECT CALLS)		C. E-MAIL ADDRESS <b>vaughangr@nswc.navy.mil</b>
		AREA CODE <b>540</b>	NUMBER <b>653-7094</b>	

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### OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within \_\_\_\_\_ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52-232-8)	10 CALENDAR DAYS (%)	20 CALENDAR DAYS (%)	30 CALENDAR DAYS (%)	CALENDAR DAYS (%)
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14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	
15B. TELEPHONE NUMBER			17. SIGNATURE	
AREA CODE	NUMBER	EXT.	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	

### AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input type="checkbox"/> 41 U.S.C. 253(c) ( )		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	
24. ADMINISTERED BY (If other than Item 7) CODE		25. PAYMENT WILL BE MADE BY CODE	
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	
		28. AWARD DATE	

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

SECTION A Solicitation/Contract Form

CLAUSES INCORPORATED BY FULL TEXT

Ddl-A20 NOTICE TO CONTRACTORS

**NOTICE TO CONTRACTORS**

**THE PURPOSE OF THIS NOTICE IS TO BRING MATTERS TO YOUR ATTENTION WHICH CAN AFFECT PAYMENT OF YOUR INVOICES.**

**CCR ANNUAL RENEWAL**

YOU MUST CONFIRM YOUR REGISTRATION IN THE CENTRAL CONTRACTOR REGISTRATION (CCR) DATABASE OR THE DEFENSE FINANCE AND ACCOUNTING SERVICE (DFAS) MAY NOT PROCESS YOUR INVOICE. YOU MAY OBTAIN MORE INFORMATION ON THIS ANNUAL RENEWAL CONFIRMATION PROCESS BY CALLING 1-888-227-2423 OR VIA THE INTERNET AT <http://www.ccr2000.com/>

**EFTS**

ELECTRONIC FUNDS TRANSFER (EFT) PAYMENTS ARE BASED ON THE EFT INFORMATION CONTAINED IN THE CCR DATABASE. IT IS CRITICAL THAT YOU ENSURE THAT YOUR EFT INFORMATION IN THE CCR DATABASE REMAINS CURRENT AND CORRECT.

YOU CAN REGISTER AT THE FOLLOWING WEB SITE TO MONITOR THE STATUS OF YOUR INVOICES. THIS IS THE VENDOR PAY INQUIRY SYSTEM-MOCAS USER REGISTRATION. <http://vendorpay.dfas.mil/newuser>

## SECTION B Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	CPFF	1.00	Lot		

The contractor shall perform the necessary efforts to design, fabricate and test fuzes for verification of a Product Improved EX 437 MOD 0 Multi-Option Fuze (MOFN) in accordance with Section C and the attachments set forth in the solicitation.

ESTIMATED COST

FIXED FEE

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Data				

The Contractor shall provide Data in accordance with the requirements of the DD Forms 1423, set forth as Attachment J.1 to the Solicitation.

Not Separately Priced

## Option 1

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	Option 1	5000	Each		Not To Exceed Price

Not to Exceed Fixed Price (NTE) (See Below)

The contractor shall provide the necessary materials and labor to manufacture 5000 fuzes IAW the requirements of Section C (beginning with C 20), and the attachments set forth to the solicitation.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		1.00	Lot		

The Contractor shall provide Data in accordance with the requirements of the DD Forms 1423, set forth as Attachment J.1 to the Solicitation.

Not Separately Priced

Not To Exceed Pricing (CLIN 0003) – The contractor shall provide Cost and Pricing Data suitable for negotiation of a firm fixed price for the 5000 fuzes no later than three (3) months prior to completion of the efforts set forth in CLINs 0001 and 0002.

CLAUSES INCORPORATED BY FULL TEXT

## HQ B-2-0004 EXPEDITING CONTRACT CLOSEOUT (NAVSEA) (DEC 1995)

(a) As part of the negotiated fixed price or total estimated amount of this contract, both the Government and the Contractor have agreed to waive any entitlement that otherwise might accrue to either party in any residual dollar amount of \$500 or less at the time of final contract closeout. The term "residual dollar amount" shall include all money that would otherwise be owed to either party at the end of the contract, except that, amounts connected in any way with taxation, allegations of fraud and/or antitrust violations shall be excluded. For purposes of determining residual dollar amounts, offsets of money owed by one party against money that would otherwise be paid by that party may be considered to the extent permitted by law.

(b) This agreement to waive entitlement to residual dollar amounts has been considered by both parties. It is agreed that the administrative costs for either party associated with collecting such small dollar amounts could exceed the amount to be recovered.

## SECTION C Descriptions and Specifications

**C.1 Scope:** The effort includes the product improvement of EX 437 MOD 0 Multi-Option Fuze (MOFN). The contractor shall design, fabricate and test fuzes for verification and provide samples to the Navy for qualification assessment. The effort also includes a production option to provide delivery of 5000 MOFN fuzes. The contractor is encouraged to work closely with the government through Integrated Product Teams (IPTs) to facilitate producing hardware that meet the technical requirements specified herein.

**C.1.1 Background:** Navy encourages the contractor to utilize the successful design and demonstration of the M782 MOFA for Navy use by making the necessary changes to meet the unique Navy requirements. MOFN shall meet all the requirements as specified herein and still keep as much commonality with the M782 as possible. The Navy has prepared a technical requirements document (MOFN-PRF-0001) which defines the Navy requirements including safety, reliability, environmental, and interface with the 5" Gun Weapon System. Changes to make the MOFN are expected to include: redesign of the inductive setting capability; redesign of the safe and arming device to increase arming distance; and increasing the electronic time precision. The production cost per fuze is also of major importance to the product improvements and this approach.

**C.2. Applicable documents.** Highest revisions are applicable for the following documents at the time of issue for the Request for Proposal.

### C.2.1. Drawings

12984952	Fuze, Multi-Option for Artillery, M782
NAPEC Dwg. 0411	Fuze Wrench Assembly & Details Torque Wrench
Metal Container M2A1	7553296
Top Support	9232149
Bottom Support	9328329

### C.2.2. Military Specifications

DTL 12984952	Detail Specification for the Fuze, Multi-Option For Artillery, M782
MIL-S-901	Shock Test, H.I. (High Impact), Shipboard Machinery, Equipment and Systems, Requirements for

### C.2.3. Military Standards

MIL-STD-129	Marking for Storage and Shipment (For Guidance Only)
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MIL-STD-331 Notice 7	Fuze and Fuze Components, Environmental and Performance Tests for
MIL-STD-973 Notice 1 Notice 2 Notice 3 (For Guidance Only)	Configuration Management
MIL-STD-1168	Ammunition Lot Numbering
MIL-STD-1316	Fuze Design, Safety Criteria for
MIL-STD-333	Fuze, Projectile and Accessory Contours for Large Caliber Armaments
MIL-STD-464	Electromagnetic Environmental Effects Requirements for Systems
MIL-STD-810	Environmental Test Methods and Engineering Guidelines
MIL-STD-882	System Safety Program Plan (for guidance)
MIL-STD-2105	Hazard Assessment Tests for (For Guidance non-Nuclear Munitions only)

#### **C.2.4. Other Documents.**

STANAG 2916	Nose Fuze Contours and Matching Projectile Cavities
STANAG 4369	Design Requirements For Inductive Setting of Electronic Projectile Fuzes
AOP 22	Design Criteria and Test Methods For Inductive Setting Electronic Projectile Fuzes
NAVSEAINST 8020.3A	Use of Lead Azide in Explosive Component Design

#### **C.2.5 Handbooks (for guidance)**



MIL-HDBK-237	Electromagnetic Compatibility Management Guide for Platforms, Systems and Equipment
MIL-HDBK-781	Reliability Test Methods, Plans, And Environments For Engineering Development, Qualification, And Production
MIL-HDBK-965	Part Selection Industry Standards

### **C.2.6 Other Navy documents, drawings and publications**

The following other Navy documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DoD 4145.26M	DoD Contractor's Safety Manual for Ammunition and Explosives
NAVORD OD 44942	Weapons System Safety Guidelines Handbook
NAVSEA TE000-AB-GTP-010	Parts Derating Requirements and Applications Manual for Navy Electronic Equipment
DoD Instruction 4160.21-M-1	Defense Demilitarization Manual
NAVMAT P-5242	Cost Control and Accounting
SECNAVINST 4210.7	Non-developmental Items
TE000-GTP-010	Derating Criteria Guide

(Copies of drawings and publications required by contractors for specific acquisitions should be obtained from the contracting officer.

### **C.2.7 Non-Navy publications**

The following documents form a part of this standard to the extent specified herein. Unless otherwise specified, the issues of the documents are DoD adopted shall be those listed in the issue of the DODISS specified in the solicitation

### **American National Standards Institute (ANSI)**

Y14.24M	Types and Application of Engineering Drawings
Y14.26	Digital Representation for Communication of Product Definition Data
ANSI/ISO/ASQC	Quality System Model for Quality Assurance in Design,

Q9001 Development, Production, Installation, and Servicing  
 IEEE/EIA J-016 Standard for Information Technology Software Life  
 Cycle Processes Software Development Acquirer-Supplier  
 Agreement

IEEE/EIA 12207.1 Software life cycle processes-Life cycle data

IEEE/EIA 12207.2 Software life cycle processes-Implementation considerations

**C.3 General requirements.** The contractor shall provide his engineering, scientific skills, manufacturing expertise, and production and test facilities to the design, testing and fabrication of the Navy MOFN Fuze.

A major emphasis of this effort is that the MOFN fuze design have as much commonality with the Army's M782 Multi-Option Fuze (MOFA) with as few changes as possible. The fuze shall meet the Navy safety, reliability and environmental requirements and be compatible for use on the Navy 5" Gun Weapon System (GWS). This effort shall be managed as joint Integrated-Product-Team (IPT) chaired by the Navy.

An option to the effort is for the contractor to manufacture and deliver a quantity of 5,000 MK 437 MOD 0 fuzes. The contractor shall manufacture lot acceptance sample fuzes. A first article may be required, depending on the success, timing, and configuration of the qualification samples. An equitable adjustment to the contract price may be required if a first article is required.

**C.3.1 Design.** The contractor shall develop and qualify a Navy design for the EX 437 Mod 0 MOFN by providing needed design modifications to the M782 MOFA baseline design 12984952 and DTL 12984952 and demonstrating the changes meet the Navy requirements identified in Technical Specification MOFN-PRF-0001. Even though the contractor is encouraged to make as few changes as possible, the contractor has full design responsibility both hardware and software and is not limited in anyway to making changes seen fit to meet the requirements set forth.

The drawings, specifications and any pending approved changes to the MOFA drawings have been prepared and are supplied to the contractor as an Attachment to this SOW. The contractor shall review these specifications and make the necessary changes to the baseline design to meet the overall performance in MOFN-PRF-0001. The changes the contractor deems necessary are to be presented to the Navy at regularly scheduled the IPT reviews. IPT reviews are as tentatively scheduled in Table 2. The performance requirements identified in the Technical Specification is under Navy control. Any changes to these requirements or any changes to this SOW will require Navy approval.

The contractor shall demonstrate the desired design changes through a verification test program and present findings at IPT reviews (DI-ADMN-81373). The contractor shall be providing the Navy test samples for system integration, engineering and performance testing. After the fuze has been successfully qualified and is authorized to enter production phase, the contractor shall manufacture and deliver production fuzes. During the course of the contract, the contractor shall

provide program management, engineering, software engineering, configuration management, quality assurance, reliability and safety support in accordance with the identified requirements and accepted industry practices.

The contractor shall provide software design, documentation, testing and qualification for the fuze. This support will involve the review, analysis and changes to the software provided under this contract. The Navy is providing under an Attachment to this SOW an evolution of the MK437 MOD 0 MOFN software. This software documentation is provided as information only and is considered unqualified. The software represents a partial development between the Navy and Army based on Navy design parameters. Any software effort by the contractor will require full hardware/software integration with qualification and demonstration. The qualification testing will affect the entire software package and not just the modifications made for the EX 437 MOD 0 fuze. Software personnel are required for IPT reviews between the contractor, Navy and M782 MOFA software design personnel. The tentative IPT schedule is identified on Table 2.

**C.3.2 Integrated management planning.** The contractor shall develop and maintain an integrated management plan detailing schedule risk, trade-offs and necessary actions to complete the MOFN design and qualification phase on schedule. The plan shall be presented at IPT reviews. See section C.15.

**C.3.3 Integration and assembly.** The contractor shall assume total responsibility for MOFN to perform as defined in MOFN-PRF-0001. The design shall require no physical, electrical or software modification to the projectiles, guns, fire control systems, setters, or other hardware with which the MOFN must interface, except as formally approved by the Navy.

**C.3.4 Navy reviews.** IPT reviews for this PIP program to be held under this contract include a system design review (SDR), preliminary design review (PDR), critical design review (CDR), test readiness reviews (TRR) prior to testing each lot, production readiness review (PRR), software reviews, periodic program status reviews, and planning reviews for the Weapon System Explosives Safety Review Board (WSESRB). These reviews may also include splinter reviews in areas including quality, documentation, reliability, software, safety, manufacturing or any other reviews the contractor deems necessary. Formal audits shall include a functional configuration audit (FCA) and physical configuration audit (PCA). The detailed design effort under this SOW shall build upon the successful completion of the preliminary design review. The CDR will be conducted after a successful demonstration of the design changes. The contractor shall support WSESRB reviews prior to production and as required. Contractor shall provide agendas (DI-ADMN-81249A) and presentation material (DI-ADMN-81373).

**C.3.5 Hardware and software deliveries.** The contractor shall design, develop, assemble, test and deliver 20 fuzes, for initial Navy integration and engineering tests, designated Lot A. The contractor shall then fabricate 400 fuzes building off the success and changes needed from the verification tests. These fuzes, designated Lot B fuzes, will be used for the Navy Qualification assessment and serve as pre-production test fuzes built and tested in accordance with the approved production Technical Data Package (TDP). Quantities and configurations of the aforementioned items are described in Table 1.

**C.3.6 Packaging for shipment and test.** The contractor and subcontractors shall pack fuzes in ammunition containers to be provided from the government as GFM. These containers shall be used during design qualification phase and in the conduct of environmental tests that require a packaged fuze configuration. The specified packaging shall be used for: all inter-plant shipments of fuzes, in order to evaluate and qualify fuze and packaging compatibility, and inter-plant shipments of partially assembled fuzes in which all or parts of the explosive train are omitted.

**C.3.7 Producibility engineering and production planning.** The contractor shall perform producibility engineering and production planning to ensure a smooth, timely and cost-effective transition of the MOFN from design qualification phase to production. Concurrent engineering shall be an integral part of the MOFN design qualification phase effort to allow for early identification of potential producibility or production problems. Producibility shall be addressed as part of the IPT reviews.

**Table 1. Hardware and Software Deliveries.**

Lot	Qty.	Fuze Description	Purpose
A	20	Complete, explosive-loaded fuzes	Product improvement engineering tests
Ba**	215/121	complete, explosive-loaded fuzes	Evaluation tests, Operational effectiveness tests
Bb**	1* minimum	components, subassemblies, fuzes	FCA, PCA
Bc**	64	a) inert; b) 31 of the 64 modified as necessary to allow disassembly, without altering EMV characteristics.	HERO, EMV, ESD testing
Bd**	8	Cutaway fuzes (see C.4.13.7)	Reference, training, display.

\* Contractor proposed quantities

\*\* Quantities from same lot build but differently configured

**Table 2. Preliminary Schedule**

Event	Approximate date
Contract Award	TBD
SRR	30 DAC
PDR	120 DAC
FQT	180 DAC
CDR	300 DAC
TRR	TBD by contractor
PCA/FCA	TBD by contractor
PRR	600 DAC

#### **C.4 Fuze product improvement**

The following paragraphs describe the basic sequence and major milestones for the contract.

**C.4.1 IPT System design review (SDR).** The contractor shall review and evaluate the Navy Specification MOFN-PRF-0001, the government provided TDP and all other relevant information for the fuze. The contractor shall evaluate the M782 MOFA design and provide a

rationale for using or not using any aspect of the design, these findings shall be presented (DI-ADMN-81373) to the Navy at the SDR. A system software design review shall be held at the same time. System requirements and contractors related plans are to be discussed at the SDR IPT. Any problem areas; inconsistent requirements or data deliverable issues shall be discussed and resolved. The contractor shall prepare minutes (DI-ADMN-81250A) stating the results of this meeting and submit it to the Navy.

**C.4.2 Design analysis.** The contractor shall conduct and document a detailed design analysis of his initial design. Physical and performance design characteristic details shall be identified, including the engineering decision process for using one methodology over another. The analysis shall include mechanical and electrical worst case stress, thermal, dimensional and tolerance analyses and producibility of the MOFN. The contractor shall document these analyses and be available for IPT review. Design analyses shall include assessments, and trade-offs. As a result of the design analyses and the preliminary design review (PDR), the contractor shall finalize and formalize the design for Lot A fabrication.

**C.4.3 Master test plan (MTP).** The contractor shall provide a MTP (DI-NDTI-80566) addressing all testing required. The MTP shall be the top working document that ties all of the contractor's test responsibilities together. The MTP will undergo several revisions during the program, reflecting necessary changes to schedules and support availability. The MTP shall address, as a minimum, all requirements given by MOFN-PRF-0001 and shall include the following elements:

- a) an overall, detailed schedule of events, including facility preparation;
- b) identification of all test facilities;
- c) a separate schedule and facility identification for the modeling, validation, and certification of the operational and support software and of its merging with the hardware prior to system integration testing;
- d) a schedule for preparation of individual test procedures and reports;
- e) the details of the contractor's reliability procedures as they directly relate to the test program;
- f) a comprehensive list of all assets, both physical and personnel, that the contractor will employ to accomplish the required test program; and
- g) identification of all testing and test support required in this SOW.

It is intended that the contractor conduct all tests covered by the MTP, except for fuze field tests and fuze electromagnetic and electrostatic tests.

- h). Software qualification shall be integrated into the MTP.

**C.4.4 Proof of design tests.** In accordance with the master test plan (MTP), the contractor shall prepare a detailed plan (DI-NDTI-80566) that identifies all pre-Lot A tests at the component, subassembly and fuze assembly levels for hardware proposed for Lot A fuzes. These tests will ensure that Lot A fuzes are properly fabricated and assembled and will have minimal performance risk. As a minimum, the following proof of design tests shall be included in the detailed test plan:

- a) inductive setting tests at minimum power conditions and maximum standoff between gun setter coil and fuze;
- b) safety and arming device spin and setback non-arming/arming tests.

- c) explosive component and explosive train tests that address component reliability, reliable initiation, propagation and output and explosive train interrupter safety; including detonator acceptance tests;
- d) comprehensive electronic functioning tests; and
- e) fuze environmental, safety and gunfire simulation tests.
- f) Design documentation representative of the proof-of-design test hardware shall be prepared.

Any proof of design tests results shall be presented (DI-ADMN-81373) at the IPT PDR. Hardware prepared and subjected to the proof of design tests shall neither be delivered nor counted as part of deliverable Lot A fuzes.

**C.4.5 Test and evaluation program (TEP).** The contractor shall provide individual test plans (DI-NDTI-80566) that require Navy approval prior to testing. All tests shall be conducted in accordance with and consistent with the master test plan. The tests may be conducted at the contractor's facilities or at an independent laboratory or commercial testing facility or Navy facilities. These plans shall provide the details for any software qualification testing. The contractor shall submit test reports (DI-NDTI-80809B) for all performance testing.

**C.4.6 Test planning working group (TPWG).** The contractor shall participate as a member of the Navy-chaired TPWG. As a member of this group, the contractor shall attend the meetings, present test activity status and accept and resolve action items.

**C.4.7 Analysis and support.** The contractor shall provide all necessary and unique MOFN test support hardware, tools, special support equipment and materials, as well as on-site engineering support to the Navy in its conduct of tests and its analysis of test results. This support shall include engineering and training as required. Contract personnel shall also assist in test preparation, support actual testing, assist in test/checkout of MOFN's, troubleshoot and conduct failure analyses. Additionally, contractor personnel shall provide technical assistance at test planning and safety meetings and advise Navy personnel on MOFN checkout procedures.

**C.4.8 Instrumentation.** The contractor shall identify all instrumentation and test equipment required to evaluate MOFN performance during test and evaluation, including that conducted at Navy ranges and test facilities.

**C.4.9 IPT Preliminary design review (PDR).** The contractor shall conduct a PDR. The PDR shall clearly and concisely show the predicted performance of the Lot A fuzes and how the design will meet the performance requirements of MOFN-PRF-0001. Internal interfaces shall be detailed. The results of a producibility analysis of the drawings for the fabrication of Lot A fuzes shall be presented (DI-ADMN-81373). Any proof of design test results shall be presented to support predicted performance. The relationship of the design to areas of cost shall be presented. The program risks shall be presented on a technical, cost and schedule basis. Alternatives to minimize risk shall be identified. The contractor shall not proceed with Lot A fuze fabrication without IPT resolution of design issues.

**C.4.10 Lot A fuze fabrication.** Following the IPT PDR concurrence to fabricate, the contractor shall fabricate Lot A fuzes. These fuzes and their major components shall be used for both performance and other destructive environmental tests in the design verification process. The major focus is to apply the same principles, process and procedures used to fabricate the MOFA design.

**C.4.11 Test readiness reviews (TRR).** The contractor shall conduct a TRR at his facility prior to the start of test and evaluation of Lots A (Design verification tests), and Ba (Qualification Tests).

**C.4.12 Lot A tests.** The contractor shall provide individual test plans (DI-NDTI-80566) that requires Navy approval prior to testing. The contractor and the Navy shall each conduct engineering tests on the Lot A fuzes. The contractor shall be responsible for conducting all contractor tests identified in the Technical Specification MOFA-PRF-0001. The contractor shall witness all field tests. The contractor shall prepare a report (DI-NDTI-80809B) that documents the contractor's and Navy's Lot A test results. The report shall include any specific design change recommendations.

#### **C.4.13 Qualification**

**C.4.13.1 Lot A review and analysis report.** The contractor shall review the Lot A fuze design and the results of all Pre-Lot A tests and Lot A analyses, provide a rationale supported by analyses for any proposed change to the design, and identify areas which the Lot A design does not conform to MOFN requirements. These findings shall be reported to the Navy prior to the IPT CDR (DI-MISC-80711A).

**C.4.13.2 IPT Critical design review (CDR).** Following Lot A testing, the contractor shall conduct a IPT CDR. At the IPT CDR, the contractor shall formally present (DI-ADMN-81373) the results of pre-Lot A and Lot A tests, producibility analyses, and recommend design changes, including trade-off impacts, safety impact, reliability data and manufacturing plans. The contractor shall describe Lot B test plans at the CDR. The tests in these plans, taken together, shall, as a minimum, address all first article and lot acceptance tests identified in the preliminary product baseline. The contractor shall not proceed with Lot B fabrication IPT concurrence, except for long-lead items pre-approved by the Navy. The preliminary product baseline documentation representative of successful Lot A testing shall be available with any pending changes for Navy review. The IPT approved PPB will be configuration managed by the contractor after a completed CDR and updates to the PPB.

**C.4.13.3 Lot Ba Fabrication and testing.** With IPT approval, the contractor may proceed to complete the fabrication and assembly of 215 fuzes for evaluation, and 121 fuzes for Operational Assessment. The contractor shall conduct sample component and subassembly tests in accordance with the requirements for such tests specified in the preliminary product baseline TDP. Lots Ba and Bb shall be homogeneous and shall be subjected to the lot acceptance tests specified in the preliminary product baseline TDP. The contractor shall provide individual test plans (DI-NDTI-80566) that requires Navy approval prior to testing. The major focus is to apply the same principles, process and procedures used to fabricate the MOFA design.



**C.4.13.4 Lot Bb fabrication.** The contractor shall fabricate a sample of MOFN changed components, subassemblies in accordance with PPB. The hardware shall be built using fabrication and assembly techniques representative of those planned for production fuzes. The fabrication quantity shall be sufficient to address the Lot Ba sample inspection and tests.

**C.4.13.5 Lot Bb Tests and Inspections.** These samples shall be utilized in the PCA and FCA. The tests and inspection shall be as agreed to in an IPT audit plan. At a minimum, the Navy shall inspect parts and tests affected by MOFN design changes. The fuze configurations shall be such that the changed parts may be inspected. Detail parts shall be available for those parts and assemblies that have changed from the MOFA design. The PCA shall be conducted at the contractor's plant.

**C.4.13.6 Lot Bc special fuzes with assembly/disassembly tools.** The contractor shall deliver special fuzes identified for Lot Bc in Table 1 of this SOW. The contractor shall furnish the Navy with two sets of any special tools used to facilitate disassembly and reassembly of all major fuze subassemblies within the fuze housing. The fuzes shall be appropriately colored and marked as inert.

**C.4.13.7 Lot Bd cutaway fuzes.** The contractor shall deliver special fuzes identified for Lot Bd in Table 1 of this SOW. These fuzes are for reference and are to be representative of the parts, materials, and processes used in fabricating the Lot B fuzes. Items of special interest to show in these cutaway fuzes are the features that are different from the M782 fuze, such as the inductive coil, and S&A features that extend the arming distance. Explosive components shall be either sectioned or drilled to show them to be inert. The fuzes shall be marked with identification similar to other Lot B fuzes, and in addition shall be appropriately colored and marked as inert.

## **C.5 Production readiness requirements**

**C.5.1 Manufacturing plan for production transition.** The contractor shall provide an integrated manufacturing plan for the transition from product improvement initial production and describe the requirements necessary to achieve full rate production.

**C.5.2 Design to cost (DTC).** One of the most significant initiatives of this contract is to control cost growth. The contractor shall provide a DTC report that shows management and control of the changes and the design-to-unit production costs (DTUPC) for MOFN. This report shall be updated regularly and as often as production-unit cost changes. (DI-MISC-80711A).

**C.5.2.1 DTC tasks.** The information in the report shall include but not limited to: DTC goal to design engineers, feedback of producibility and cost data, implementing control processes such as tracking and reporting the systems used by the contractor and his subcontractors, maintaining target goals, integrating the contractor DTC processes with the Navy DTC effort and any special cost reduction techniques of programs, for example, make/buy, standardization, value engineering, and so forth, that may be employed in the minimization of costs.

**C.5.3 IPT Production readiness review (PRR).** The contractor shall support a Navy PRR following completion of the Operational Assessment. The review input shall include the results of the qualification tests and address the status of tooling and test equipment and the contractor's integrated manufacturing plan to support Navy production decisions.

**C.5.3.1 Production special tooling/special test equipment (ST/STE) design.** The contractor shall identify and report on the changes needed to the MOFA inspection and test equipment and production procedures as a result of the changes for MOFN.

**C.6 Navy furnished material (GFM) and information (GFI)**

The Navy shall furnish the following material, and information at contract award or when required:

- a) Software and software documentation - Updated DT-I software listing.
- b) Drawings and specifications Attachment
- c) Metal Container M2A1 7553296
- d) Top Support 9232149
- e) Bottom Support 9328329
- f) MK 34 MOD 1 Fuze Setter and EP2 Simulator

**C.7 SYSTEM ENGINEERING**

This section of the statement of work describes engineering requirements directly related to the performance, safety and overall quality of the EX 437 Mod 0.

**C.7.1 System engineering program (SEP) -** The contractor shall establish, conduct, and maintain a SEP. The SEP will be tailored by the Integrated Management Plan to coordinate and integrate program requirements and engineering efforts throughout the period of the contract. Concurrent engineering practices shall be used to ensure that performance, safety, reliability, product assurance, human factors, testability and producibility for both product improvement program and future production fuzes are addressed during all stages of design. The contractor shall establish effective controls for the total engineering process, including subcontracted efforts, and shall control system configuration

**C.8 Safety program.** The contractor shall be prepared to discuss their safety initiatives at IPT reviews.

**C.8.1 System safety working group (SSWG).** The contractor shall participate in and support Navy chaired SSWG meetings as needed. The group shall be composed of contractor and Navy representatives involved in all areas of the MOFN design. The SSWG shall convene during the regular design and IPT reviews, document results, and maintain an up-to-date SSWG database.

**C.8.2 Critical safety items and characteristics.** The contractor shall identify all items and characteristics if not conforming to a design or quality requirement, would result in an unsafe condition. The contractor shall compile the identified items and characteristics in a safety critical item/characteristic report (DI-SAFT-80970A) submit a report to the Navy for review and approval.

**C.8.3 Sneak circuit analysis.** The contractor shall perform a sneak-circuit analysis of the MOFN design and report (DI-MISC-80711A). Sneak conditions are hidden paths or other hidden condition within an electrical or software system. A fault occurs when one of these conditions causes an unwanted function to take place or inhibits a desired function from being performed. The unique property of the sneak condition is the fault occurs when all components are operating within their specifications. The flaw causing the sneak condition is present within the design itself. The contractor shall include pre-armed, arming and post-arming circuit elements and identify both safety and reliability failure modes in the sneak condition analyses.

**C.8.4 Safety fault tree analysis.** The contractor shall perform and report (DI-MISC-80711A) a safety fault tree analysis as part of the design process to identify failure paths which could lead to premature arming, that is, arming prior to safe separation, or premature explosive firing, as well as unintentional firing anywhere in flight. The analysis shall include quantification of the probabilities of occurrence of these undesired events and comparison with safety failure rates specified in MIL-STD-1316.

**C.8.5 Storage, handling and use of ammunition, explosives and dangerous materials.** The contractor shall comply with DoD 4145.26M, as a minimum, while performing services under this contract involving storage, handling, and use of ammunition, explosives and related dangerous materials.

#### **C.8.6 Safety Test And Review**

**C.8.6.1 Safety qualification testing.** Jolt, primary explosive component safety, 1.5 meter drop, 12-meter drop, performance oriented packaging, other rough handling or transportation tests, EME and HERO tests or any other tests which could cause early arming, early function or failure to control hazardous material are designated as safety related tests. The contractor and Navy shall accomplish these tests in accordance with the fuze, safety device and detonator specifications or by direction of the WSESRB.

**C.8.6.2 Hazard classification testing.** The contractor shall support any testing to be conducted to determine the hazard classification of the MOFN. The contractor shall develop and maintain hazard classification source data for all deliverable hazardous items under this contract.

**C.8.6.3 Safety reviews.** The contractor shall present design safety status at all IPT reviews (DI-ADMN-81373) and shall assist the Navy in the preparation of the data package and presentation material for presentation to the WSESRB.

#### **C.8.7 Safety Reporting.**

**C.8.7.1 ECP, RFD and RFW analyses.** The contractor shall document analyses of Engineering Change Proposals (ECP's) and requests for Deviations and Waivers (RFD and RFW) to determine the safety impact on the system.

**C.9 Quality program.** The contractor shall maintain an effective Quality Assurance (QA) program, which shall assure compliance with the drawings, specification and other contractual

provisions concerning quality. The contractor shall coordinate all requirements and test methods with the Navy during the course of the contract to enable expeditious approval of plans and specifications. The Navy will be the final approval authority for all inspection plans, procedures and specifications. The contractor shall provide a QA program suitable to achieving the performance required. The contractor shall establish, implement, document and maintain a quality system that ensures conformance to contractual requirements and meets the requirements of ANSI/ASQC Q9001, or an equivalent quality system model. Quality assurance personnel will participate in IPT reviews as needed and will report on progress of the quality program implemented during production.

**C.9.1 Special inspection and test equipment.** Inspection and test equipment designs required to perform examinations and tests shall be submitted to the Navy (DI-SESS-81004B) for approval and be in accordance with MIL-T-31000 developmental level. The designs, as a minimum, shall disclose information sufficient to permit evaluation of the proposed equipment, including commented source code for the test software. All submissions shall include the drawing number of the component, subassembly or assembly being inspected and the characteristic being inspected in accordance with the applicable specification. The contractor is required to obtain Navy approval of contractor certification of the STE before its delivery. After STE certification approval, the contractor shall not make changes to the STE without Navy approval.

**C.9.2 Calibration and maintenance.** A calibration and maintenance program shall be established and maintained to assure the accuracy of measuring devices used in the performance of this contract. A written description of the program, which defines how, the contractor satisfies each requirement of the referenced standard shall be prepared and implemented. This description shall be included in the quality program plan. The contractor shall be responsible for the maintenance and calibration of any Navy furnished acceptance inspection equipment while that equipment is at the contractor's facility. Measuring devices include test and inspection equipment, test support equipment, standards, and equipment controlling special processes as well as production tools, jigs, and fixtures, and personally owned tools, which may be used to provide objective evidence of quality conformance. A listing of applicable measuring devices shall be established and maintained. The listing shall identify the recall intervals and calibration procedure.

**C.9.3 Material certification.** Material certifications shall be made available upon request. The contractor shall implement and maintain a corrective action and disposition system for nonconforming materials.

**C.9.4 Inspection and test data.** The contractor shall maintain complete records of all inspection results for all components, subassemblies, assemblies and the end item. Variables data shall be recorded. The data shall be measured and recorded both pre- and post-test at ambient temperature and at the hot and cold temperature extremes as appropriate. Additionally, variables data shall be submitted to support the validation of requirements generated in the applicable specifications. These records shall be made available to the Navy upon request.

**C.9.5 Quality inspection reporting.** Deliverable hardware shall be inspected in accordance with the development and product specifications. A quality inspection test demonstration and

evaluation report, which provides all test and inspection data, shall be submitted with each deliverable quantity of hardware.

**C.10 Reliability program** The contractor shall establish, conduct and maintain an efficient and effective reliability program throughout the product improvement program. The reliability program shall be designed to support economical achievement of the overall MOFN program objectives and the specified value of reliability. Where reliability data is applicable from the M782 MOFA, it is allowable for the MOFN. The contractor shall, however, consider reliability impact on changes made to the MOFA design baseline. Any additional reliability testing deemed necessary to achieve reliability performance equal to the levels achieved by MOFA shall be documented and reported at IPT reviews.

**C.10.1 Reliability program plan.** The contractor shall develop and implement a reliability program plan, which shall identify the tasks, and procedures needed to economically and realistically achieve the reliability requirements. Identifying potential problems, from experience with similar designs, and presenting solutions, which will improve reliability and useful life, will do this, in part. Reliability analyses shall be performed concurrently with the design effort for efficient and economical implementation of corrective actions. Use MIL-HDBK-781 for guidance.

**C.10.3 Monitoring and control of subcontractors and suppliers.** The contractor shall develop and implement a subcontractor control and monitoring process and a process for incorporating key suppliers into the design and manufacturing process of the MOFN. Applicable reliability program requirements shall be flowed down to suppliers and a review process shall be implemented to assure supplier parts and products meet their reliability requirements. The Navy shall be notified of, and given the opportunity to participate in all reliability related meetings with subcontractors and suppliers.

**C.10.4 Reliability program reviews.** Reliability assessments of the MOFN shall be presented (DI-ADMN-81373) at IPT reviews. The contractor shall provide reliability program progress visibility to ensure accomplishment of the reliability requirements. The contractor shall also conduct reliability previews or technical coordination meetings as necessary to address and resolve reliability issues that cannot be delayed until the next IPT review or handled by correspondence. Where commonality with the M782 MOFA design is utilized, related reliability information and data for MOFN shall be presented.

**C.10.5 Failure reporting, analysis and corrective action system (FRACAS).** The contractor shall establish a FRACAS. Failure data collection and recording shall commence with the first functional test of printed circuit boards, modules, and assemblies and shall continue through integration testing. The FRACAS shall be clearly identified in the integrated management plan.

**C.10.6 Failure review board (FRB).** The contractor shall establish an FRB. All test activities shall be monitored and failures shall be recorded and subjected to a failure review board analysis to determine the root cause of failures and to identify immediate corrective actions and long-term corrective actions to prevent recurrence. The reliability engineer shall be a member of the FRB and the configuration change board. The Navy reserves the right to attend FRB meetings. The FRB charter and guidelines shall be clearly identified in the integrated management plan.

**C.10.7 Reliability status report.** The contractor shall include the reliability status on activities performed during the reporting period in the monthly progress report. Any failure reports shall be forwarded to the Navy attached to the monthly progress report. (DI-RELI-81315)

**C.10.8 Reliability design and analysis program.** The contractor shall fulfill the following design and analysis tasks.

**C.10.8.1 Reliability modeling.** The contractor shall review the Navy-furnished Lot A reliability prediction and preliminary allocation and shall develop an operational life cycle reliability block diagram and math model for the MOFN. Information on the storage, handling, life and mission profiles will be provided by the Navy.

**C.10.8.2 Reliability allocations.** The contractor shall allocate the MOFN hardware reliability requirement to lower levels as appropriate. Allocated values of reliability shall be used in subassembly specifications, and as a guide to component selection and equipment design.

**C.10.8.3 Reliability predictions.** The reliability model shall be used to make fuze reliability predictions.

**C.10.8.4 Failure modes effects and criticality analysis (FMECA).** The contractor shall perform a FMECA. The FMECA shall be performed to the piece part level. The results of the FMECA shall be used to identify reliability and safety critical items and as an input to the safety hazard analysis, the safety fault tree analysis and the sneak circuit analysis (DI-MISC-80711A).

**C.10.8.5 Electronic parts/circuits tolerance analysis.** The contractor shall conduct an electronic parts/circuit analysis in accordance with MIL-STD-785, Task 206 on those critical circuits recommended by the contractor and approved by the Navy. The analyses shall be conducted over the operating temperature extremes defined in MOFN-PRF-0001.

**C.11 Software** This section applies to software to be implemented as firmware within the MOFN. All requirements set forth in this section shall also apply to subcontractors involved in the software product improvement. The contractor shall design, develop, document, and control computer software in accordance with the following subparagraphs.

**C.11.1 Software product improvement management.**

**C.11.1.1 Development planning.** Contractor's software planning data, processes and practices shall be available for Navy review. Any Software Development Plan the contractor utilizes shall describe the methods and policies for managing and conducting the software product improvement and life cycle data for MOFN. Use IEEE/IEA 12207.1, 12207.2 and EIA/IEEE J-STD-016 for Guidance.

**C.11.1.2 Computer software configuration items (CSCI).** The contractor shall define the baseline for software, and document the requirement and schedule for software product improvement. Any computer software configuration item shall require an allocated flow down of requirements from fuze specifications to a software product specification.

**C.11.1.3 Software reviews.** The contractor shall conduct joint software technical reviews. The contractor shall decide when these reviews best fit his development process. These reviews should be conducted and integrated as part of the Integrated Management Plan and be coordinated with contract milestone meetings SRR, SPDR, SCDR, FQT.

- a) Software specification review (SSR). The contractor shall conduct the SSR. The SSR shall be conducted when the CSCI requirements have been sufficiently defined to verify the contractor's responsiveness and understanding of the requirements.
- b) Software preliminary design review (SPDR). The contractor shall conduct the SPDR to describe the plans the contractor has for verification of requirements.
- c) Formal Qualification review (FQT) The contractor should have the adequate documentation to support an acceptance review and acceptance testing
- d) Software critical design review (SCDR). The contractor shall conduct the SCDR to review and validate the software design.
- e) Software test readiness review (STRR). The contractor shall conduct the STRR prior to the formal qualification test (FQT) specified therein.

## **C.11.2 Software documentation**

**C.11.2.1 Software drawings.** The contractor shall prepare any software drawings and altered item drawings in accordance with ASME Y14.24M.

**C.11.2.2 Software specifications.** The contractor shall prepare the following software specifications: Software Design Description (DI-IPSC-81435A); Software Interface Document (DI-MCCR-80027) and Software Product Specification (DI-DCCR-80029A). These documents shall provide the information needed for the Navy to provide life cycle support of the software design. Any other software documentation deemed necessary shall be made known at the planned software IPTs.

## **C.11.3 Software testing.**

**C.11.3.1 Software test description (STD).** The contractor shall prepare an STD (DI-IPSC-81439) prior to the STRR. The document shall include the software test plan, the input data, expected output data, and evaluation criteria that comprise the test cases for all formal qualification tests of the CSCI. The STD provides test procedures for formal qualification testing.

**C.11.3.2 Software formal qualification test (FQT).** The contractor shall conduct software FQT prior to firmware installation in the fuze hardware. The Navy may witness the FQT and must provide approval to the contractor to install the firmware.

**C.11.3.3 Software test report (STR).** The contractor shall generate an STR after the FQT has been completed (DI-IPSC-81440A). The report shall consist of a test log, test results and a test

evaluation. The STR shall provide verification of software requirements that ensures all required functions have been tested.

### **C.12 Technical Data Package (TDP)**

The contractor shall prepare and use a TDP during product improvement engineering and qualification. The contractor shall document the design with associated quality assurance provisions and special test and inspection equipment. The TDP will include product drawings, associated lists (DI-DESS-81000B), detail specifications (DI-SDMP-81493), packaging drawings, test requirement documents and software documentation.

The contractor shall document electronic test requirements necessary to ensure the characteristics of performance and include these in the TDP. Material and process specification, special inspection equipment drawings and special tooling drawings and their associated lists shall be included in the TDP for complete product definition and total design disclosure. Equipment descriptive documentation (DI-SESS-81004B) that can not be defined by normal drawing and specification practices shall be prepared to provide the information where by personnel, not having detailed knowledge of the inspection equipment may set up, program, operate, calibrate, and maintain a specific item of inspection equipment without the assistance of a design contractor's facilities or highly trained personnel.

The contractor is permitted to use any part of the information supplied as MOFA TDP attachment without change. Any drawing requiring change from the MOFA baseline design for MOFN application shall be redrawn and issued a new Navy identifying number. Specifications and software drawings shall be issued a uniquely assigned document number.

**C.13 Configuration Management (CM).** The contractor shall be responsible for implementing an approved configuration management system, establishing the item baseline and controlling changes to the baseline design.

**C.13.1 ECPs, Waivers and Deviations** – ECPs, (DI-CMAN-80639B), requests for deviation (RFD's) (DI-CMAN-80640B), requests for waiver (RFW's) (DI-CMAN-80641B) shall be submitted for contractor requests to the technical requirements specification MOFA-PRF-0001.

**C.13.2 Preliminary PCI baseline approval.** The MOFN preliminary product baseline will be established by Navy approval of the TDP at the CDR IPT.

**C.13.2.1 CM after PCI baseline approval.** After CDR IPT and preliminary product baseline approval, the contractor shall submit to Navy for information any Engineering Change Proposals (ECP's) (DI-CMAN-80639B), requests for deviation (RFD's) (DI-CMAN-80640B), requests for waiver (RFW's) (DI-CMAN-80641B). ECP's shall include an attached notice of revision (NOR) (DI-CMAN-80642B), for each document affected by the proposed change. The contractor shall provide one copy of the as-built list (A007) with each deliverable fuze. This "as-built" list shall include all deliverables (ECP's, waivers and deviations) from the PCI baseline.

**C.13.3 Final PCI baseline approval.** The MOFN final product baseline will be established by Navy approval of the TDP following the PCA and FCA.



**C.13.4 National stock number (NSN).** The Navy will request the assignment of NSN's.

**C.13.5 Serial numbers.** The contractor shall assign serial numbers to the hardware CI's that require traceability, manufacturing defect correction accountability, and correlation to quality assurance inspection.

**C.13.6 Identification numbering of documents.** Drawings and specification numbers will be provided by the Navy. Upon receipt of the draft copy of specifications, the Navy will provide the specification number.

**C.13.7 Maintenance of configuration documentation.** The contractor shall maintain all of the unique MOFN configuration documents. Changes required to a MOFA drawing will require a new Navy drawing to be prepared with a unique Navy drawing number. Contractor shall maintain the documentation until delivery and final approval by the Navy.

**C.13.8 Interface control documentation.** The contractor shall manage and control MOFN internal interfaces. The Navy shall identify, develop and control the MOFN interface control documentation (ICD) for interface with the projectile and gun system elements at the CI levels. The contractor shall incorporate interface control information in the technical data package as provided.

**C.13.9 Configuration status accounting.** The contractor shall establish and maintain a configuration status accounting database and management system to provide uniform, clearly defined status accounting management information.

**C.13.10 Configuration audits.** The contractor shall conduct configuration audits in accordance with a IPT established audit plan.

**Table 6. Responsibilities for Configuration Management of TDP Documentation.**

Item	Document	GFI required by	Document Responsibility	
			Navy	Contractor

EX 437 Mod 0 Multifunction Fuze	Development Specification MOFN-PRF-0001.	Contract award	Maintain; approve all changes.	Submit ECP/WAV/DEV to Navy for changes
	Product Specification Fuze and S/A	Contract award	Approve PPBL at CDR.	Develop & maintain until final submission ; submit updates to Navy for info after CDR.
	MOFN Drawings	none	Approve PPBL at CDR; Safety change approval.	Develop & maintain until final submission ; submit ECP updates to Navy for info after CDR.
	MOFA Drawings (TBD)	Contract award	Safety change approval.	Use if unchanged. If changed prepare new MOFN drawing.
	Interfaces	Contract award	Develop & maintain for projectile & gun systems	Develop & maintain for internal fuze until final submission Submit ECP/WAV/DEV for system external interface.
	Software Specifications	Contract award	Safety change approval	Develop and maintain until final submission. Provide updates to Navy after CDR.

**C.14 Integrated Management Plan (IMP).** The contractor shall establish a management process to control the MOFN program in accordance with the IMP and oversee the achievement of the integrated management schedule (IMS) milestones and dates, cost objectives, and technical requirements. This management process shall also extend to control of program subcontractors and critical suppliers to ensure the subcontractors' suppliers' activities support the overall program milestones, cost objectives and technical requirements. The contractor's program manager shall direct their efforts through a management system, which will provide program progress visibility and ensure accomplishment of the program requirements. The contractor shall establish and maintain management operations that includes the following areas:

- a) program planning, control and reviews;
- b) subcontractor control;
- c) financial management;
- d) data management;
- e) management and accountability for Navy furnished equipment, material or information;
- f) risk management;
- g) systems engineering; and
- h) specialty Engineering.

The contractor shall establish and implement a program management office function to manage all technical performance, systems engineering, reliability and maintainability engineering, CM, cost, schedule, and data delivery requirements of the contract. The Government's insight to program manufacturing planning and progress shall be through joint Integrated Product Teams (IPT).

**C.14.1 Integrated Management Schedule (IMS).** The contractor shall develop and maintain a detailed program interdependency schedule including key events and milestones for use in tracking and monitoring the progress of the integration effort and for use in identifying the costs associated with the tasks (that is, hardware and software, technical and program documentation, hardware fabrication and testing) for reaching the milestones. The contractor shall develop an interdependency schedule and an information base that addresses planning for the completion of contract work, actual performance against this planning, critical path, and projection of future performance. The contractor shall ensure traceability of the activities in the -program schedule to the contract work breakdown structure (CWBS) elements.

**C.14.2 Cost/schedule management.** The contractor shall implement a formal integrated cost/schedule control system DFARS 252.234-7001.

**C.14.3 Navy cost review.** The Navy shall have access, as required, to the contractor's accounts, including work package records, logs, and to cost account managers. The contractor's cost/schedule control system shall be reviewed in a walk-through inspection. The contractor shall manage the product improvement program and collect cost and cost related data in a disciplined manner so an integrated, inform cost data base exists for program financial management.

**C.14.4 Performance/Cost status reports (P/CSR).** The contractor shall establish, maintain, and use in the performance of this contract written operating procedures that provide for the planning and control of cost and schedules, the measurement of performance accomplishments and the generation of timely and reliable information for input to the P/CSR. The contractor shall submit monthly P/CSR's (DI-FNCL-80912). A separate copy of the P/CSR shall be transmitted by facsimile (FAX) to the Navy program office as soon as possible. In the case of an indicated cost overrun, reporting shall be developed to greater detail and frequency at the discretion of the Navy.

Within ninety (90) days after contract award, or as otherwise agreed to by the Navy and contractor, designated Navy representatives may, at the discretion of the Navy, visit the contractor's facility to observe and understand how cost/schedule and performance is generated to satisfy the P/CSR contractual requirements. During the visit, the contractor shall provide the necessary briefings and documentation to explain the internal procedures used on the contractor generating the P/CSR report. In the event the prime contractor's effort increases above the required thresholds stated which have previously been accepted by the Navy, a review may be required at the discretion of the Navy to assure that the system employed continues to satisfy all P/CSR reporting criteria.

## **C.15 Program reviews**

**C.15.1 Program management reviews (PMR's).** The contractor shall conduct program reviews quarterly throughout the program with dates and locations mutually agreed upon by the contractor and the Navy. Where possible, the contractor shall schedule PMR's in conjunction with other reviews (IPR's, PRR's, PCA's.). The PMR will provide the necessary visibility to the Navy into the conduct and consequences of the various efforts by the contractor. The contractor

shall present his technical, logistic, financial and schedule performance, problem areas, and recommended corrective actions. All reviews shall include an agenda (DI-ADMIN-81249A) and presentation materials (DI-ADMN-81373) of program status, issues, problems and solutions and plans as a result of the integration and test activities and schedule impacts during the reporting period. Reviews shall also include results of special studies and a status report on all contract data submissions during the reporting period and for the next reporting period. The contractor shall ensure that designated representatives assigned the lead/primary responsibility for the specified agenda items, including subcontractors and suppliers/vendors, participate in the reviews. For the convenience of all participants, material to be covered during each PMR shall be organized and presented in separate time blocks designated programmatic or technical. The contractor shall develop an agenda and coordinate with the Navy program manager prior to each PMR. A draft copy of all material to be presented (DI-ADMN-81373) by the contractor shall be furnished to the Navy two weeks prior to each PMR. The contractor shall record and publish minutes (DI-ADMN-81250A) of each review, major decisions, unresolved issues and action items.

**C.15.2 Weapon System Explosives Safety Review Board (WSESRB) reviews.** In addition to presenting the program reviews, the contractor shall participate in technical interchange and WSESRB meetings at his facility or Navy offices.

## **C.16 Reports**

**C.16.1 Progress reports.** The contractor shall submit to the Navy a monthly progress report (DI-MGMT-80227), which describes progress on a task-by-task basis keyed to the approved integrated management plan. The progress reports shall consolidate all monthly status reports appearing as data requirements in this SOW.

**C.16.2 Revised integrated management plan (IMP).** The contractor may revise the approved IMP during the contract performance period by submitting for Navy approval.

**C.16.3 Final report.** At the end of the technical effort, the contractor shall submit a scientific and technical report (DI-MISC-80711A) describing the nature and results of the product improvement program, with the exception of the operational evaluation, in accordance with ANSI Z39.18.

**C.16.4 Meeting agenda and minutes.** The contractor shall prepare and submit to the Navy minutes of all meetings, conferences and audits (DI-ADMIN-81250A) conducted in relation to this program. The contractor shall submit an agenda for each meeting and minutes of each meeting. Minutes of the meetings shall include key issues, decisions reached, action items and future planned efforts.

**C.17 Data management** The contractor shall establish and maintain a data management program to organize and administer all data generated or required as a result of this contract.

**C.17.1 Data manager.** The contractor shall identify a contract data manager who will have the authority and responsibility to integrate and control the contractor's data management effort

during the contract. The contractor shall have controls that address the quality of data prepare, compliance to data specifications, and timely review and delivery of data listed on the DD Form 1423, contractor data requirements list (CDRL). The contractor shall provide data in accordance with the CDRL.

**C.17.2 TDP guidance conference.** The contractor shall support and chair a guidance conference for the TDP's. The conference shall be convened at IPT PDR or on a mutually agreeable date. The contractor shall address, discuss, and provide status on the following and provide minutes (DI-ADMN-81250A).

- a) understanding of CDRL requirements, applicable DID's, specifications and standards,
- b) TDP review requirements and schedules,
- c) TDP delivery requirements and schedules,
- d) contractor's drafting practices and TDP document formats,
- e) explanation of the contractor's proposed numbering system for TDP documents and part numbers,
- f) the contractor's quality assurance procedures relating to TDP documents, including quality control of subcontractor and vendor data,
- g) the contractor's rights in technical data marking procedures and policies,
- h) the roll of subcontractors and vendors who will deliver TDP documents under this contract,
- i) the contractor's configuration management system procedures including methods for releasing documents, approving documents, incorporating changes into documents, tracking the actual as-built configuration, and for integrating modifications into the TDP documentation baseline; and
- j) the contractor's plans and processes used to prepare for the digital TDP deliveries.

**C.18 Marking of data.** All contractor submitted data, including drawings, specifications, reports, plans, agenda, minutes and test results shall be marked. Marking shall be located on the cover sheet or sheet 1 and include the following:

**"Distribution Statement D: Distribution authorized to the DoD and DoD contractors only; military technology; April 1994. Other requests for this document shall be referred to the Naval Sea Systems Command, Code PM4, NSWC, Crane Division, Crane, Indiana. WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act Title 22, U.S.C. App. 2751 et seq. or the Export Administration Act of 1979, as amended, Title 50, U.S.C., App 2401, et seq. Violation of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of OPNAVINST 5510.161 , Reference (F). For unclassified, limited distribution documents, destroy by any method that will prevent disclosure of contents or reconstruction of the document."**

**C.19 Electronic Data Interchange.** To facilitate the distribution of data under this contract and at the option of the contractor, any manufacturing supporting data such as plans, inspection data, tests results, failure reports, technical reports, requests for changes, etc. which is normally

generated during product improvement and production can be provided via on-line, real time access to the contractor's Management Information System, web-site or electronic mail. In addition, the contractor can provide programmatic data including schedules, progress reporting and as-built data. The contractor is encouraged to recommend to the government a system that will best utilize the electronic transfer of information. The contractor should recommend the "best approach" and "best value" to eliminate formal documentation submittals.

## **OPTION 1**

### **C.20 PRODUCTION OPTION :**

**C.20.1 General.** The Contractor shall fabricate, test, and deliver MK437 MOD 0 Fuzes in accordance with (IAW) the Technical Data Package (TDP), Drawing TBD, DTL TBD, Detail Specification for the Multi-Option Navy, Fuze, MK437 MOD 0, and SR-M782 (Secret), Special Requirement Fuze, M782, inclusive of all approved Engineering Change Proposals (ECP's). The MOFN shall be packed for delivery in accordance with Drawing TBD (12984994).

**C.20.2** The contractor shall adhere to Concurrent Engineering Practices through participation in a Government chaired IPT.

**C.21 Configuration Management.** The contractor shall work with the IPT in updating designs within TDP (12984952) to include all changes under this contract. The IPT shall monitor the progress of the program, evaluate all data required to be submitted by the contractor, approve all TDP changes, and provide recommendations to encourage efficiency towards meeting the program's objectives.

**C.21.1 Production Configuration Management Program:** The contractor shall maintain a Configuration Management (CM) Program; MIL-STD-973 may be used as guidance. The contractor shall obtain concurrence from the IPT on the methodology and strategy for conducting the CM Program. The CM Program shall address all aspects of the contract effort, which ultimately lead to establishment, deviation or modification of any item of the Technical Data Packages.

**C.21.1.1 Configuration Management after IPT Approval:** Once the IPT has formally approved the changes to the TDP, the contractor shall prepare and submit change documentation, i.e., Engineering Change Proposals (ECP) (DI-CMAN-80639B, Tailored), Requests for Deviation (RFD) (DI-CMAN-80640B, Tailored), and Requests for Waiver (RFW) (DI-CMAN-80641B, Tailored). MIL-STD-973 (Tailored) may be used for guidance. The contractor shall also submit Notices of Revisions (DI-CMAN-80642B, Tailored). MIL-STD 973, Paragraphs 5.4.2 through 5.4.2.4.4; 5.4.3 through 5.4.3.5.2; 5.4.4 through 5.4.4.5.2 and 5.4.7 may be used as guidance. The contracting officer will provide disposition of all such submissions. The contractor shall provide a record by drawing and revision level, specification and revision level of each component, subassembly and assembly used in any hardware builds. The record shall include, with each applicable item, any nonconformance to drawing or specification requirements; ISO 9000-1 may be used as reference. Waivers and deviations for non-conforming material shall include the revision level of the document in effect

## **C.22 Production Quality Assurance Program**

**C.22.1 Material Certifications-** The contractor shall keep Material Certifications on file which shall be made available should the requirements arise.

**C.22.2 Ammunition Data Cards-** Ammunition Data Cards shall be prepared (DI-MISC-80043A) for all MK437 MOD 0 MOFN Fuze Lots in accordance with MIL-STD-1168B. Lot Numbering shall be in accordance with MIL-STD-1168B.

**C.22.3 Acceptance Inspection Equipment (AIE) -** Standard (commercial) inspection and test equipment designs that are used to perform examinations and tests in accordance with the TDP, (12984952) shall be submitted (DI-RELI-80322). Special Acceptance Inspection Equipment designs which are used to perform examinations and tests in accordance with the aforementioned specification(s) that cannot be defined by normal drawings and specifications shall be submitted (DI-QCIC-81006, Tailored). Equipment descriptive documentation that cannot be defined by normal drawing and specification practices shall be prepared to provide the information whereby personnel, not having detailed knowledge of the inspection equipment may set up, program, operate, calibrate, and maintain a specific item of inspection equipment without the assistance of a design contractor's facilities or highly trained personnel (DI-QCIC-81006, Tailored).

### **C.22.4 Critical Non-conformance Control Provisions:**

**C.22.4.1** The contractor's production process shall be designed to prevent the creation of a critical nonconformance (Level I or II). The contractor is responsible for all equipment, procedures and other factors relating to critical characteristics.

**C.22.4.2** In the event a Level I or II critical nonconformance is found anywhere in the production process, the contractor shall ensure:

**C.22.4.2.1** The nonconforming item is positively identified and segregated to ensure there is no possibility of an item inadvertently re-entering the production process. This control shall be accomplished without affecting or impairing subsequent nonconforming analysis.

**C.22.4.2.2** The operation that produced the nonconforming component or assembly and any other operations incorporating that component or assembly is immediately stopped.

**C.22.4.2.3** Immediate notification of the occurrence of a critical nonconformance is made to the Government (DI-SAFT-80970A).

**C.22.4.2.4** Any suspect material (material in process that may contain the same nonconformance) is identified, segregated and suspended from any further processing.

**C.22.4.2.5** An investigation is conducted to determine the cause of the nonconformance and required corrective actions. Positive corrective action is required. A report of the investigation shall be submitted to the Government (DI-SAFT-80970A).

**C.22.4.2.6** An investigation is conducted with regard to suspect material to ensure there is no possibility of a critical nonconformance being present. A report of this investigation shall be submitted to the Government (DI-SAFT-80970A).

**C.22.4.2.7** Restart of production or use of any suspect material shall not occur without authorization from the procuring activity (DI-SAFT-80970A).

**C.22.4.3 Previous Practices/Special Characteristics** – As a result of previous practices, the Government's technical data may refer to "Critical" (not annotated with a I or II) and "Special" characteristics. Characteristics classified as "Critical" (not annotated with a I or II) shall be subject to all requirements herein associated with Critical (I) Characteristics and Level I critical nonconformance. Characteristics classified as "Special" shall be subject to all requirements herein associated with Critical (II) Characteristics and Level II critical nonconformance.

**C.22.5 Failure Analysis and Corrective Actions Report-** Contractor shall submit a Failure Analysis and corrective action report (DI-RELI-81315). The contractor may use MIL-HDBK-781A, Paragraph 4.6.1, Task 202, 301, 302, and 401 for guidance.

**C.22.6 Lot Acceptance Test.** The Contractor is responsible for conducting Lot Acceptance Testing, including Environmental Testing, except for Ballistic Lot Acceptance gun firings, which will be conducted by the Government at a Government Facility in accordance with MOFN-PRF-0001

**C.22.7** The contractor shall conduct all component and assembly level testing with exception to ballistic testing according to the requirements defined in the TDP, (Ref Drawing 12984952).

**C.22.8 Environmental compliance.** All activities must comply with Federal, State, and Local Environmental Laws and Regulations, Executive Orders, Treaties and Agreements.

**C.22.9 Program management.** The contractor shall submit Contractor's Progress Status and Management Reports (DI-MGMT-80227).

**C.22.10 Accident/Incident Report.** The contractor shall report (DI-SAFT-81563) immediately any major accident/incident (including fire) resulting in any one or more of the following: Causing one or more fatalities, or one or more disabling injuries; damage of Government property exceeding \$10,000; affecting program planning or production schedules; degrading the safety of equipment under contract, such that personal injury or property damage may be involved; identifying a potential hazard requiring corrective action.

**C.22.11 Performance Oriented Packaging (POP).** The contractor shall provide POP information for the MK437 MOD 0 MOFN Fuze (DI-PACK-81059). Prior to shipment, the contractor shall make sure the container has been tested by a Government approved Performance Oriented Packaging (POP) Test Laboratory for compliance with POP requirements in accordance with Title 49 Code of Federal Regulations. POP marking shall not be applied to the container



until verified by the Government. The contractor shall submit a POP test report (DI-PACK-81059) following the test.

**C.22.12 Production of lot acceptance testing (Government Facility)**

- a. A Production lot acceptance test sample is required to be submitted by the contractor from each production lot tendered to the government for acceptance.
  - b. The production lot acceptance test sample shall consist of 159 fuzes as detailed in Figure 4 of MOFN-PRF-0001.
  - c. The production lot acceptance test sample units shall be randomly selected from the entire lot by, or In the presence of, the Government Quality Assurance Representative (QAR). Prior to selection of the production lot acceptance test sample units, the lot shall have been inspected to, and shall meet all requirements of the contract. Unless authorized by the Contracting Officer, a test sample shall not be submitted from a lot, which is or has been rejected for nonconformance to the detailed requirements of the contract, the specification(s) and/or the drawing(s).
  - d. The Production lot acceptance test sample (including, if applicable, basic issue items and/or repair parts) shall be packaged and packed in accordance with the contract; if packaging and packing requirements are not specified in the contract, the production lot acceptance test sample shall be packaged and packed in accordance with best commercial practices. The production lot acceptance test sample shall be appropriately marked, to include the drawing/part number, the contract number, and the name of the contractor and for production lot acceptance testing. The production lot acceptance test sample shall be accompanied by a DD Form 1222, Request For and Results of Test, appropriately completed by the Government QAR. A copy of the results of the contractor's examination and/or test shall be attached to the DD form 1222. Simultaneous with shipment of the production lot acceptance test samples, a copy of the DD Form 1222 (including attached documentation) shall be submitted to **TBD**.
  - e. The production lot acceptance test sample shall be shipped Free On Board (FOB) Destination to the location designated below unless transportation protective service and/or transportation protective service and/or transportation security is required, the test sample shall be shipped FOB destination. Shipping Destination: **TBD**
- The production lot acceptance test sample shall be examined and tested by the Government for and/or in accordance with SOW and TBD (DTL 12984952).
- g. Within 45 days after receipt of the production lot acceptance test sample at the government facility, the Contracting Officer shall provide written notification to the Contractor as to the approval, disapproval or conditional approval of the production lot acceptance test sample. Unless Authorized by the Contracting Officer, the lot from which the production lot acceptance test sample is drawn shall not be shipped from the Contractor's facility, nor shall final acceptance of the lot to be made until such time as notification has been provided by the Contracting Officer that the production lot acceptance test samples have been approved and/or conditionally approved.

h. If the Contracting Officer does not provide notification of the approval, conditional approval or disapproval of the production lot acceptance test sample within the time specified above, the Contracting Officer shall equitably adjust the delivery/performance dates and/or the contract price (and any other contractual provision affected by such delay) in accordance with the procedures provided in the Changes Clause of this contract.

i. If the production lot acceptance test sample fails to meet any applicable contractual requirement, the lot from which the test sample was drawn shall be considered rejected. The contractor shall take immediate corrective action, both to correct the deficiency/nonconformance (if applicable) and to prevent recurrence of such deficiency/nonconformance and shall submit an additional production lot acceptance test sample (from the reworked lot or from a new lot as applicable). Such corrective action shall be taken by the contractor at no increase in contract price and shall apply to all items (including, if applicable, basic items and/or repair parts) either in-process or final assembly which have been produced (or are in production) since the last successful production lot acceptance test. Any and all costs associated with testing the additional production lot acceptance test sample shall be borne by the contractor. The Contracting Officer shall equitably adjust the contract price as applicable for the costs associated with additional testing resulting from failure of the production lot acceptance test sample to meet applicable contractual requirements.

## SECTION D Packaging and Marking

### CLAUSES INCORPORATED BY FULL TEXT

Performance Oriented Packaging (POP) – See Section C.22.11 concerning packing and marking Information for the MK437 MOD 0 MOFN Fuze (DI-PACK-81059).

#### HQ D-1-0001 DATA PACKAGING LANGUAGE

All unclassified data shall be prepared for shipment in accordance with best commercial practice.

Classified reports, data, and documentation shall be prepared for shipment in accordance with National Industrial Security Program Operating Manual (NISPOM), DOD 5220.22-M dated January 1995. Also, note requirements of Section C.18, Marking of Data

#### HQ D-2-0008 MARKING OF REPORTS (NAVSEA) (SEP 1990)

All reports delivered by the Contractor to the Government under this contract shall prominently show on the cover of the report:

- (1) name and business address of the Contractor
- (2) contract number
- (3) contract dollar amount
- (4) whether the contract was competitively or non-competitively awarded
- (5) sponsor:

\_\_\_\_\_  
(Name of Individual Sponsor)

\_\_\_\_\_  
(Name of Requiring Activity)

\_\_\_\_\_  
(City and State)

Also, note requirements of Section C.18, Marking of Data

#### HAZARDOUS MATERIALS (JAN 1992) (NAVSUP)

(a) Packaging, Packing, Marking and Labeling Hazardous materials to be shipped by any mode or combination of transportation modes shall be prepared (properly classed, described, packaged, marked, labeled, transport vehicle placarded, etc.) for shipment in accordance with MIL-STD 129-1 and all applicable government and carrier regulations in effect at time of shipment.

(b) In the event of a conflict between specific requirements in the contract or order and existing applicable regulations, the regulations take precedence. Under no circumstances shall the contractor knowingly use materials, markings or procedures that are not in accordance with laws and regulations applicable to the mode of transportation employed.

#### **TYPE OF APPLICABLE SHIPMENT REGULATIONS**

- |                               |         |
|-------------------------------|---------|
| 1. Domestic                   | A       |
| 2. Domestic Air Commercial    | A, B, C |
| 3. Domestic Air Military      | A, F    |
| *4. Export Surface            | A, E, G |
| *5. Export Air Commercial     | A, D, G |
| *6. Export Air Military (MAC) | F, G    |

#### **LIST OF REGULATIONS**

- A. Code of Federal Regulations Title: 49 Transportation Parts 100-199.
- B. Official Air Transport Restricted Articles Tariff No. 6-D C.A.B. 82.
- C. Official Air Transport Restricted Articles Circular No. 6-D.
- D. International Air Transport Association Restricted Articles Regulations.
- E. International Maritime Dangerous Goods Code.
- F. Air Force Regulation 71-4 Preparation of Hazardous Materials for Military Shipment
- \*G. Export shipments are also subject to the domestic regulations indicated to the port of embarkation.

## SECTION E Inspection and Acceptance

## INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	NSWCDD	Destination	NSWCDD
		G34		G34
0003	Origin	DCMC QAR	Origin	DCMC QAR

## CLAUSES INCORPORATED BY REFERENCE:

52.246-8	Inspection Of Research And Development Cost Reimbursement	MAY 2001
52.246-16	Responsibility For Supplies	APR 1984
252.246-7000	Material Inspection And Receiving Report	DEC 1991
52.246-2	Inspection of Supplies – Fixed Price	AUG 1996

## SECTION F Deliveries or Performance

## DELIVERY INFORMATION

CLINS	DELIVERY DATE	UNIT OF ISSUE	QUANTITY	FOB	SHIP TO ADDRESS
0001	600 Days after award	Lot	1.00	Dest.	NSWCDD G34
0003	60 Days after Option Exercise	Each	5000	Dest	TBD

## CLAUSES INCORPORATED BY REFERENCE:

52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.247-34	F.O.B. Destination	NOV 1991

## CLAUSES INCORPORATED BY FULL TEXT

## Ddl-F21 ENTRANCE OF VEHICLES CARRYING ARMS, AMMUNITION, AND/OR EXPLOSIVES (AA&amp;E)

This clause applies if AA&E materials are being delivered to NSWCDL. AA&E materials consist of ammunition, explosives, ordnance items (live loaded, empty and/or inert), and ordnance related items (live loaded, empty, and/or inert). Carriers of these materials are restricted from entering NSWCDL at any gate other than B Gate, which is located on Route 301 approximately 2 miles south of the Harry W. Nice Bridge. Deliveries of AA&E materials will be accepted Monday through Friday only between the hours of 0700 and 1430 local time. Vehicles arriving outside these hours shall proceed to B Gate where they shall contact the NSWCDL Security Officer for instructions.

## Ddl-F40 CONTRACTOR NOTICE REGARDING LATE DELIVERY

In the event the contractor anticipates or encounters difficulty in complying with the contract delivery schedule or date, he/she shall immediately notify, in writing, the Contracting Officer and the cognizant Contract Administration Services Office, if assigned. The notice shall give the pertinent details; however such notice shall not be construed as a waiver by the Government of any contract delivery schedule, or of any rights or remedies provided by law or under this contract.

## 252.223-7003 CHANGE IN PLACE OF PERFORMANCE - AMMUNITION AND EXPLOSIVES (DEC 1991)

(a) The Offeror shall identify, in the "Place of Performance" provision of this solicitation, the place of performance of all ammunition and explosives work covered by the Safety Precautions for Ammunition and Explosives clause of this solicitation. Failure to furnish this information with the offer may result in rejection of the offer.

(b) The Offeror agrees not to change the place of performance of any portion of the offer covered by the Safety Precautions for Ammunition and Explosives clause contained in this solicitation after the date set for receipt of offers without the written approval of the Contracting Officer. The Contracting Officer shall grant approval only if there is enough time for the Government to perform the necessary safety reviews on the new proposed place of performance.

(c) If a contract results from this offer, the Contractor agrees not to change any place of performance previously cited without the advance written approval of the Contracting Officer.

## SECTION G Contract Administration Data

## CLAUSES INCORPORATED BY REFERENCE:

252.242-7000

Postaward Conference

DEC 1991

## CLAUSES INCORPORATED BY FULL TEXT

## GOVERNMENT CONTRACT ADMINISTRATION POINTS-OF-CONTACT AND RESPONSIBILITIES

**Procuring Contracting Officer (PCO):**

- (a)    Name:            G. R. Vaughan or any NSWCDD Contracting Officer  
      Address:        Code XDS105  
                        Dahlgren Division  
                        Naval Surface Warfare Center  
                        17320 Dahlgren Road  
                        Dahlgren, Virginia 22448-5100  
      Phone:            (540) 653-7094;    FAX:    (540) 653-7088  
      E-mail:           gvaughan@nswc.navy.mil

(b) PCO responsibilities are outlined in FAR 1.602-2. The PCO is the only person authorized to approve changes in any of the requirements of this contract or orders issued there under and, notwithstanding provisions contained elsewhere in this contract, the said authority remains solely the PCO's. The contractor shall not comply with any order, direction or request of Government personnel unless it is issued in writing and signed by the Contracting Officer or is pursuant to specific authority otherwise included as part of this contract. In the event the contractor effects any change at the direction of any person other than the PCO, the change will be considered to be unauthorized.

**Administrative Contracting Officer (ACO)**

- (a)    To be Designated at Time of Award

(b) The Administrative Contracting Officer (ACO) of the cognizant Defense Contract Management Agency (DCMA) is designated as the authorized representative of the Contracting Officer for purposes of administering this contract in accordance with FAR 42.3. However, in view of the technical nature of the supplies and services to be furnished, technical cognizance is retained by the Naval Surface Warfare Center, Dahlgren Division.

**Contracting Officer's Representative (COR):**

- (a)    To be Designated at Time of Award



(b) The COR is the PCO's appointed representative for technical matters. The COR is not a contracting officer and does not have the authority to direct the accomplishment of effort which is beyond the scope of the contract or to otherwise change any contract requirements. An informational copy of the COR appointment letter which provides a delineation of COR authority and responsibilities is provided as an attachment to this contract.

### **Paying Office**

(a) To be Designated at Time of Award

(b) The Paying Office makes all payments under the contract.

### **ADDRESS TO WHICH PAYMENT WILL BE MADE:**

To be Designated at Time of Award

### **Ddl-G12 POST-AWARD CONFERENCE**

(a) A Post-Award Conference with the successful offeror will be conducted within 30 days after award of the contract. The conference will be held at the Contractor's facility.

(b) The contractor will be given 5 working days notice prior to the date of the conference by the Contracting Officer.

(c) The requirement for a post-award conference shall in no event constitute grounds for excusable delay by the Contractor in performance of any provisions in the contract.

### **Ddl-G40 PAYMENT, SELECTED ITEMS OF COST REIMBURSEMENT CONTRACTS**

(a) Travel Costs (Including Foreign Travel)

(1) Air: The contractor shall, to the maximum extent practicable, minimize overall travel costs by taking advantage of discounted airfare rates available through advance purchase. Charges associated with itinerary changes and cancellation under nonrefundable airline tickets are reimbursable as long as the changes are driven by the work requirement.

(2) Non-reimbursable Travel: The following travel shall not be reimbursed hereunder: travel performed for personal convenience, daily travel to and from work at the contractor's facility (i.e., designated work site) or to and from NSWCCD when NSWCCD is the designated work site.

(b) Training

The Government will not allow costs, nor reimburse costs associated with the contractor training employees in an effort to attain and/or maintain minimum personnel qualification requirements

of this contract. Other training may be approved on a case-by-case basis by the COR. Attendance at workshops or symposiums is considered training for purposes of this clause.

(c) General Purpose Office Equipment (GPOE) and Information Technology (IT)

The cost of acquisition of GPOE and IT shall not be allowable as direct charges to this contract. The contractor is expected to have the necessary facilities to perform the requirements of this contract, including any necessary GPOE and IT. GPOE means equipment normally found in a business office such as desks, chairs, typewriters, calculators, file cabinets, etc. IT means any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, movement, control, display, switching, interchange, transmission, or reception of data or information. IT includes computers, ancillary equipment, software, firmware and similar products, services (including support services), and related resources.

Ddl-G41 PAYMENT OF FIXED FEE (COST PLUS FIXED FEE)

(a) Subject to the withholding provisions of this clause, and any other adjustments required by other contract clauses, the fixed fee shall be paid in installments.

(b) The amount of each fee installment shall be billed at [ \* ]% of allowable costs. This percentage reflects the ratio of total contract fixed fee to total contract estimated cost.

(c) In accordance with FAR 52.216-8 FIXED FEE in Section I of this contract, the Contracting Officer has established a withholding of 15% of funded fixed fee, not to exceed \$100,000. The contractor's provisional payment vouchers may invoice fee at the percentage cited in paragraph (b) above, up to 85% of the funded fixed fee.

[ \* ] -- to be specified at contract award]

**5252.232-9001 SUBMISSION OF INVOICES (COST-REIMBURSEMENT, TIME-AND-MATERIALS, LABOR-HOUR, OR FIXED PRICE INCENTIVE) (JUL 1992)**

(a) "Invoice" as used in this clause includes contractor requests for interim payments using public vouchers (SF 1034) but does not include contractor requests for progress payments under fixed price incentive contracts.

(b) The Contractor shall submit invoices and any necessary supporting documentation, in an original and [ ] copies, to the contract auditor\* at the following address:

\_\_\_\_\_

\_\_\_\_\_

unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order. In addition, an information copy shall be submitted to \_\_\_\_\_. Following verification, the contract auditor\* will forward the invoice to the designated payment office for payment in the amount determined to be

owing, in accordance with the applicable payment (and fee) clause(s) of this contract.

(c) Invoices requesting interim payments shall be submitted no more than once every two weeks, unless another time period is specified in the Payments clause of this contract. For indefinite delivery type contracts, interim payment invoices shall be submitted no more than once every two weeks for each delivery order. There shall be a lapse of no more than [ ] calendar days between performance and submission of an interim payment invoice..

(d) In addition to the information identified in the Prompt Payment clause herein, each invoice shall contain the following information, as applicable:

- (1) Contract line item number (CLIN)
- (2) Subline item number (SLIN)
- (3) Accounting Classification Reference Number (ACRN)
- (4) Payment terms
- (5) Procuring activity
- (6) Date supplies provided or services performed
- (7) Costs incurred and allowable under the contract
- (8) Vessel (e.g., ship, submarine or other craft) or system for which supply/service is

provided

(e) A DD Form 250, "Material Inspection and Receiving Report",

\_\_\_\_\_ is required with each invoice submittal.

\_\_\_\_\_ is required only with the final invoice.

\_\_\_\_\_ is not required.

(f) A Certificate of Performance

\_\_\_\_\_ shall be provided with each invoice submittal.

  X   is not required.

(g) The Contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.

(h) Costs of performance shall be segregated, accumulated and invoiced to the appropriate ACRN categories to the extent possible. When such segregation of costs by ACRN is not possible for invoices submitted with CLINS/SLINS with more than one ACRN, an allocation ratio shall be established in the same ratio as the obligations cited in the accounting data so that costs are allocated on a proportional basis.

(i) When a vendor invoice for a foreign currency is provided as supporting documentation, the Contractor shall identify the foreign currency and indicate on the vendor invoice the rate of exchange on the date of payment by the Contractor. The Contractor shall also attach a copy of the bank draft or other suitable documents showing the rate of exchange. The contractor shall provide an English translation if the vendor invoice is written in a foreign language.

## SECTION H Special Contract Requirements

## CLAUSES INCORPORATED BY FULL TEXT

## Ddl-H10 EMPLOYMENT OF US GOVERNMENT PERSONNEL RESTRICTED

In performing this contract, the Contractor shall not use as a consultant or employ (on either a full or part time basis) any active duty U.S. Government personnel (civilian or military) without the prior written approval of the Contracting Officer. Such approval may be given only in circumstances where it is clear that no laws and no DoD or U.S. Government instructions, regulations, or policies might possibly be contravened and no appearance of a conflict of interest will result.

**Ddl-H14 KEY PERSONNEL – DESIRED QUALIFICATIONS**

To perform the requirements of the Statement of Work, the Government desires personnel with the following education and experience qualifications:

KEY LABOR CATEGORY	# RESUMES
Program Manager	1
Sr. Electrical Engineer	2
Sr. Mechanical Engineer	1
Sr. Software Engineer	1
Total Resumes	5

- a. Education – It is desired that the key personnel have a bachelor's of science in engineering.
- b. General Experience - General experience includes work experience in engineering, computer science, mathematics, physical science, or another field appropriate to the labor category employing skills that apply to the accomplishment of the technical objectives of the Statement of Work. General experience may not necessarily meet the definition of specialized experience.
- c. Specialized Experience – It is desired that Sr. Electrical Engineers have experience developing and producing electronic proximity fuzes for large caliber ammunition. It is desired that a Sr. Electrical Engineer have experience developing and producing and inductive interface with the MK 45 GWS in accordance with STANAG 4369. It is desired that the Sr. Mechanical Engineer have experience with large caliber ammunition S&A theory and design and experience with the production of the M739

S&A. It is desired that a Sr. Software Engineer have experience writing and testing proximity fuze software in assembly language.

Specific experience with 5" Conventional Ammunition Navy Fuzing is highly desirable.

Key Personnel Desired Qualifications - The following table shows the desired levels (years) of general and specialized experience for each of the Key labor categories.

KEY LABOR CATEGORY	GENERAL	SPECIALIZED
Program Manager	10	3
Engineer(s)	10	3

#### Ddl-H16 RESUME FORMAT AND CONTENT REQUIREMENTS

All resumes submitted under this contract shall be provided in the following format.

- (a) COMPLETE NAME
- (b) CONTRACT LABOR CATEGORY
- (c) AVAILABILITY (state as a percentage of a total manyear. Note whether individual is proposed or is working as a key person on another requirement and, if so, provide explanation as to how both requirements will be satisfied).
- (d) LEVEL OF SECURITY CLEARANCE
- (e) WORK EXPERIENCE -- Show experience and dates as follows:  
Name of Employer; 6 years 4 mos.; 10/91 - 2/98; Position Title

Work experience shall be presented in separate paragraphs, clearly marked with proper category of experience (Qualifying Experience; Non-Relevant Experience -- If relevant and non-relevant experience was obtained while at the same employer, separate time periods shall be noted for each assignment.) All qualifying experience shall be presented in a level of detail that will permit the evaluator to make a clear connection between the experience and the stated qualifications for the labor category. Specific examples of work assignments, accomplishments, and products shall be provided. Phrases such as "assisted with", "participated in", or "supported" are unacceptable except as introductory to a detailed description of the actual work performed. In addition, the resume for the Project Manager shall list previous contracts or tasks under which he/she had technical and management responsibility including contract number and customer point of contact.

All military experience claimed shall be described such that each tour is treated as a separate employer. Time frames/titles/ responsibilities shall be provided at the level of detail proscribed by above. Military experience not documented in this manner may not be considered.

Contractors shall avoid gaps in experience as time unaccounted for may lead to confusion and need for clarification.

- (f) EDUCATION -- Show all post-secondary as follows:  
Degree(s); Date(s); Institution; Major/Minor

If non-degreed, if the degree is in an unrelated field, or if formal training falls short of a degree, the Government may evaluate additional specific experience/education substituted in lieu of the degree qualification. Such work experience(s) shall be described at the level of detail discussed above or it may not be evaluated. Experience cited as a substitute for the degree qualification may not also be credited toward fulfillment of labor category experience requirements. Specific classes submitted for consideration shall be identified together with applicable training institution and completion date.

## MINIMUM REQUIREMENTS

**SECURITY CLEARANCE - The offeror's facility must be cleared at the SECRET level. All personnel must also have SECRET clearances in order to be eligible to receive an award based on this solicitation.**

## Ddl-H43 REQUIRED INSURANCE

(a) The following types of insurance are required in accordance with the clause entitled "INSURANCE - LIABILITY TO THIRD PERSONS" and shall be maintained in the minimum amounts shown:

(1) Comprehensive General Liability: \$100,000 per person and \$500,000 per accident for bodily injury. No property damage general liability insurance is required.

(2) Automobile Insurance: \$200,000 per person and \$500,000 per accident for bodily injury and \$20,000 per accident for property damage. Comprehensive form of policy is required.

(3) Standard Workmen's Compensation and Employer's Liability Insurance (or, where maritime employment is involved, Longshoremen's and Harbor Worker's Compensation Insurance) in the minimum amount of \$100,000.

(b) The policies for such insurance shall contain an endorsement that cancellation or material change in the policies, adversely affecting the interest of the Government in such insurance, shall not be effective unless the Contracting Officer approves such cancellation or change. When the coverage is provided by self-insurance, prior approval of the Administrative Contracting Officer is required for any change or decrease in coverage.

## Ddl-H50 NOTICE OF INCORPORATION OF SECTION K

Section K of the solicitation (Representation, Certifications and Other Statements of Offerors) will not be distributed with the contract; however, it is incorporated in and forms a part of the resultant contract as though furnished in full text therewith.

**HQ B-2-0007 LIMITATION OF COST OR LIMITATION OF FUNDS LANGUAGE**

The clause entitled "LIMITATION OF COST" (FAR 52.232-20) or "LIMITATION OF FUNDS" (FAR 52.232-22), as appropriate, shall apply separately and independently to each separately identified estimated cost.

Government furnished material (GFM) and information (GFI)

The Government shall furnish the following material, and information at contract award and/or when required:

- g) Software and software documentation - Updated DT-I software listing.
- h) Drawings and specifications Attachment
- i) Metal Container M2A1 7553296
- j) Top Support 9232149
- k) Bottom Support 9328329
- l) MK 34 MOD 1 Fuze Setter and EP2 Simulator

**52.223-3 Hazardous Material Identification and Material Safety Data (Jan 1997)**

(a) "*Hazardous material*," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

<b>Material</b> <i>(If none, insert "None")</i>	<b>Identification No.</b>

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to --

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

#### 252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labelling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;



- (3) Consumer Product Safety Act;
- (4) Federal Hazardous Substances Act; or
- (5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labelled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

	MATERIAL (If None, Insert "None.")			ACT	

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

## **252.223-7002 SAFETY PRECAUTIONS FOR AMMUNITION AND EXPLOSIVES (MAY 1994)**

### **(a) Definition.**

“Ammunition and explosives,” as used in this clause --

(1) Means liquid and solid propellants and explosives, pyrotechnics, incendiaries and smokes in the following forms:

- (i) Bulk;
- (ii) Ammunition;
- (iii) Rockets;
- (iv) Missiles;
- (v) Warheads;
- (vi) Devices; and
- (vii) Components of (i) through (vi), except for wholly inert items.

(2) This definition does not include the following, unless the Contractor is using or incorporating these materials for initiation, propulsion, or detonation as an integral or component part of an explosive, an ammunition or explosive end item, or of a weapon system --

- (i) Inert components containing no explosives, propellants, or pyrotechnics;
- (ii) Flammable liquids;
- (iii) Acids;
- (iv) Oxidizers;
- (v) Powdered metals; or
- (vi) Other materials having fire or explosive characteristics.

(b) Safety requirements.

(1) The Contractor shall comply with the requirements of the DoD Contractors' Safety Manual for Ammunition and Explosives, DoD 4145.26-M hereafter referred to as "the manual," in effect on the date of the solicitation for this contract. The Contractor shall also comply with any other additional requirements included in the schedule of this contract.

(2) The Contractor shall allow the Government access to the Contractor's facilities, personnel, and safety program documentation. The Contractor shall allow authorized Government representatives to evaluate safety programs, implementation, and facilities.

(c) Noncompliance with the manual.

(1) If the Contracting Officer notifies the Contractor of any noncompliance with the manual or schedule provisions, the Contractor shall take immediate steps to correct the noncompliance. The Contractor is not entitled to reimbursement of costs incurred to correct noncompliances unless such reimbursement is specified elsewhere in the contract.

(2) The Contractor has 30 days from the date of notification by the Contracting Officer to correct the noncompliance and inform the Contracting Officer of the actions taken. The Contracting Officer may direct a different time period for the correction of noncompliances.

(3) If the Contractor refuses or fails to correct noncompliances within the time period specified by the Contracting Officer, the Government has the right to direct the Contractor to cease performance on all or part of this contract. The Contractor shall not resume performance until the Contracting Officer is satisfied that the corrective action was effective and the Contracting Officer so informs the Contractor.

(4) The Contracting Officer may remove Government personnel at any time the Contractor is in noncompliance with any safety requirement of this clause.

(5) If the direction to cease work or the removal of Government personnel results in increased costs to the Contractor, the Contractor shall not be entitled to an adjustment in the contract price or a change in the delivery or performance schedule unless the Contracting Officer later determines that the Contractor had in fact complied with the manual or schedule provisions. If

the Contractor is entitled to an equitable adjustment, it shall be made in accordance with the Changes clause of this contract.

(d) Mishaps.

If a mishap involving ammunition or explosives occurs, the Contractor shall --

- (1) Notify the Contracting Officer immediately;
- (2) Conduct an investigation in accordance with other provisions of this contract or as required by the Contracting Officer; and
- (3) Submit a written report to the Contracting Officer.

(e) Contractor responsibility for safety.

(1) Nothing in this clause, nor any Government action or failure to act in surveillance of this contract, shall relieve the Contractor of its responsibility for the safety of --

- (i) The Contractor's personnel and property;
- (ii) The Government's personnel and property; or
- (iii) The general public.

(2) Nothing in this clause shall relieve the Contractor of its responsibility for complying with applicable Federal, State, and local laws, ordinances, codes, and regulations (including those requiring the obtaining of licenses and permits) in connection with the performance of this contract.

(f) Contractor responsibility for contract performance.

(1) Neither the number or frequency of inspections performed by the Government, nor the degree of surveillance exercised by the Government, relieve the Contractor of its responsibility for contract performance.

(2) If the Government acts or fails to act in surveillance or enforcement of the safety requirements of this contract, this does not impose or add to any liability of the Government.

(g) Subcontractors.

(1) The Contractor shall insert this clause, including this paragraph (g), in every subcontract that involves ammunition or explosives.

(i) The clause shall include a provision allowing authorized Government safety representatives to evaluate subcontractor safety programs, implementation, and facilities as the Government determines necessary.

(ii) Note: The Government Contracting Officer or authorized representative shall notify the prime Contractor of all findings concerning subcontractor safety and compliance with the manual. The Contracting Officer or authorized representative may furnish copies to the subcontractor. The Contractor in turn shall communicate directly with the subcontractor, substituting its name for references to "the Government". The Contractor and higher tier subcontractors shall also include provisions to allow direction to cease performance of the subcontract if a serious uncorrected or recurring safety deficiency potentially causes an imminent hazard to DoD personnel, property, or contract performance.

(2) The Contractor agrees to ensure that the subcontractor complies with all contract safety requirements. The Contractor will determine the best method for verifying the adequacy of the subcontractor's compliance.

(3) The Contractor shall ensure that the subcontractor understands and agrees to the Government's right to access to the subcontractor's facilities, personnel, and safety program documentation to perform safety surveys. The Government performs these safety surveys of subcontractor facilities solely to prevent the occurrence of any mishap which would endanger the safety of DoD personnel or otherwise adversely impact upon the Government's contractual interests.

(4) The Contractor shall notify the Contracting Officer or authorized representative before issuing any subcontract when it involves ammunition or explosives. If the proposed subcontract represents a change in the place of performance, the Contractor shall request approval for such change in accordance with the clause of this contract entitled "Change in Place of Performance - Ammunition and Explosives".

#### **252.223-7003 CHANGE IN PLACE OF PERFORMANCE - AMMUNITION AND EXPLOSIVES (DEC 1991)**

(a) The Offeror shall identify, in the "Place of Performance" provision of this solicitation, the place of performance of all ammunition and explosives work covered by the Safety Precautions for Ammunition and Explosives clause of this solicitation. Failure to furnish this information with the offer may result in rejection of the offer.

(b) The Offeror agrees not to change the place of performance of any portion of the offer covered by the Safety Precautions for Ammunition and Explosives clause contained in this solicitation after the date set for receipt of offers without the written approval of the Contracting Officer. The Contracting Officer shall grant approval only if there is enough time for the Government to perform the necessary safety reviews on the new proposed place of performance.

(b) If a contract results from this offer, the Contractor agrees not to change any place of performance previously cited without the advance written approval of the Contracting Officer

**DEMILITARIZATION CLAUSE/UNCLASSIFIED AND UNLOADED AMMUNITION METAL PARTS (OR COMPONENT THEREOF)**

(a) The items called for by this contract are military items, the following provision as to the disposal of completed or partially completed parts, components, subassemblies, and end items will apply. Property (whether title to the property is in the Government or not, and including parts, components, subassemblies and assemblies to the extent indicated below) of the type covered by this contract for which the Contractor does not claim or is refused payment (including, but not limited to, rejects or overruns) under the provisions of this contract, but which is manufactured, fabricated, assembled, or produced in connection with the manufacture, fabrication, assembly or production of the items covered by this contract, and which is manufactured, fabricated, assembled or produced on the basis of or with the aid of drawings, specification, facilities, equipment, or material furnished or specified by the Government pursuant to this contract, will be completely destroyed or mutilated (whichever is prescribed) prior to final payment in the manner and to the extent herein below set forth in order that such property will be unusable or non-reclaimable for its original purpose, and to preclude the possibility of reconditioning such property to make it saleable as implements of war:

Unclassified and loaded ammunition items (or components thereof) will be destroyed by static firing, burning or detonation in accordance with the appropriate explosive disposal procedure for each specific item. This material may be destroyed on the contractor's facility, or custody may be transferred to an appropriate military explosive ordnance disposal activity for destruction.

(b) The Contractor agrees that no items demilitarized, as stated above, will be disposed of by the Contractor other than as scrap.

(c) Upon completion of production under this contract, the Contractor shall certify to the Administrative Contracting Officer that demilitarization, as prescribed above, has been accomplished.

(d) The Contractor further agrees that it will include the aforesaid provisions in any subcontracts for the aforesaid items

**PHYSICAL SECURITY STANDARDS FOR SENSITIVE ITEMS**

The Contractor will comply with DOD 5100.76-M, Physical Security of Sensitive Conventional Arms, Ammunition and Explosives, 3 Feb 83, with changes 1 through 4.

**TRANSPORTATION SECURITY REQUIREMENTS (CATEGORY IV)**

Supplies procured under this contract are identified as sensitive material (Category IV) under DOD 5100.76M (Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives) requiring Transportation Protective Services (TPS) in accordance with DOD 5100.76M and AR 55-355/DLAR 4500.3 (Defense Traffic Management Regulation) as added to

or amended by applicable military service policies in accordance with guidance provided by Defense Logistics Agency (DLA)/Defense Contract Management Area Office (DCMAO), or other components assigned to provide contract administration services (CAS) within designated/delegated geographic areas as specified under DOD 4105.59H, DOD Directory of Contract Administration Services Components, dated January 1985, and subsequent issues thereof for offshore/OCONUS Procurements.

#### **TRANSPORTATION SECURITY REQUIREMENTS FOR CONTRACTOR TO CONTRACTOR SHIPMENTS**

Supplies procured or furnished under this contract/subcontract, which are shipped between two or more contractors, and which are qualified as sensitive in accordance with DOD 5100.76M (Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives), or are shipped as DOT Class A or B Explosives, require special Transportation Protective Services (TPS) during shipment from all points of origin to all destinations. TPS will be equivalent to the DOD security standard for the applicable sensitivity category or explosive class identified under DOD 5100.76M and AR 55-355/DLAR 4500.3 (Defense Traffic Management Regulation) as added to or amended by applicable military service policies in accordance with guidance provided by Defense Logistics Agency (DLA)/Defense Contract Management Area Office (DCMAO).

Shipper's Defense Contract Administration Service Region/Management Area Office (DCASR/DCMAO) transportation offices will furnish assistance in providing the sensitive category of items to be shipped, determining the TPS required, and obtaining the TPS from commercial carriers as necessary.

This clause must be entered in all contracts/subcontracts at any tier.

#### **252.223-7007 SAFEGUARDING SENSITIVE CONVENTIONAL ARMS, AMMUNITION, AND EXPLOSIVES (FEB 1996)**

##### **(a) Definition.**

"Arms, ammunition, and explosives (AA&E)," as used in this clause, means those items within the scope (chapter 1, paragraph B) of DoD 5100.76-M, Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives.

(b) The requirements of DoD 5100.76-M apply to the following items of AA&E being developed, produced, manufactured, or purchased for the Government, or provided to the Contractor as Government-furnished property under this contract:

Nomenclature	Sensitivity category
--------------	----------------------

(c) The Contractor shall comply with the requirements of DoD 5100.76-M, as specified in the statement of work. The edition of DoD 5100.76-M in effect on the date of issuance of the solicitation for this contract shall apply.

(d) The Contractor shall allow representatives of the Defense Investigative Service (DIS), and representatives of other appropriate offices of the Government, access at all reasonable times into its facilities and those of its subcontractors, for the purpose of performing surveys, inspections, and investigations necessary to review compliance with the physical security standards applicable to this contract.

(e) The Contractor shall notify the cognizant DIS field office of any subcontract involving AA&E within 10 days after award of the subcontract.

(f) The Contractor shall ensure that the requirements of this clause are included in all subcontracts, at every tier--

(1) For the development, production, manufacture, or purchase of AA&E; or

(2) When AA&E will be provided to the subcontractor as Government-furnished property.

(g) Nothing in this clause shall relieve the Contractor of its responsibility for complying with applicable Federal, state, and local laws, ordinances, codes, and regulations (including requirements for obtaining licenses and permits) in connection with the performance of this contract.

52.223-3      Hazardous

#### **Hazardous Material Identification and Material Safety Data (Jan 1997)**

(a) "*Hazardous material*," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

<b>Material</b> <i>(If none, insert "None")</i>	<b>Identification No.</b>

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsive and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to --

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.



## SECTION I Contract Clauses

## CLAUSES INCORPORATED BY REFERENCE:

52.202-1	Definitions	DEC 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 1997
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-5	Material Requirements	AUG 2000
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
52.215-14	Integrity of Unit Prices	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	DEC 1998
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	OCT 1997
52.215-19	Notification of Ownership Changes	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.216-7	Allowable Cost And Payment	FEB 2002
52.216-8	Fixed Fee	MAR 1997
52.219-4	Notice of Price Evaluation Preference for HUBZONE Small Business Concerns	JAN 1999
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9	Small Business Subcontracting Plan	JAN 2002
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-19	Child Labor--Cooperation with Authorities and Remedies	SEP 2002
52.222-20	Walsh-Healy Public Contracts Act	DEC 1996
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	DEC 2001
52.223-6	Drug Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	OCT 2000
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1 Alt I	Authorization And Consent (Jul 1995) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-11	Patent Rights - Retention by the Contractor (Short Form)	JUN 1997

52.228-7	Insurance--Liability To Third Persons	MAR 1996
52.230-2	Cost Accounting Standards	APR 1998
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	JUN 1996
52.232-20	Limitation Of Cost	APR 1984
52.232-22	Limitation Of Funds	APR 1984
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25	Prompt Payment	FEB 2002
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-1	Disputes	JUL 2002
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-2	Production Progress Reports	APR 1991
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.243-2	Changes--Cost-Reimbursement	AUG 1987
52.243-2 Alt V	Changes--Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.243-1	Changes - Fixed Price (Aug 1987) - ALT V	APR 1984
52.244-2 Alt I	Subcontracts (Aug 1998) - Alternate I	AUG 1998
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	MAY 2002
52.245-5 (Dev)	Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts) (Deviation)	JAN 1986
52.246-23	Limitation Of Liability	FEB 1997
52.249-6	Termination (Cost Reimbursement)	SEP 1996
52.249-2	Termination for Convenience of the Government (Fixed Price)	SEP 1996
52.249-14	Excusable Delays	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001
252.205-7000	Provisions Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	OCT 1998
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.223-7002	Safety Precautions For Ammunition and Explosives	MAY 1994
252.223-7004	Drug Free Work Force	SEP 1988
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 1991
252.225-7007	Buy American Act--Trade Agreements--Balance of Payments Program	OCT 2002
252.225-7009	Duty-Free Entry--Qualifying Country Supplies (End Products and Components)	AUG 2000
252.225-7012	Preference For Certain Domestic Commodities	APR 2002
252.225-7016	Restriction on Acquisition of Ball and Roller Bearings (Dec 00)	DEC 2000
Alt I	Alternate I	
252.225-7026	Reporting Of Contract Performance Outside The United States	JUN 2000

252.225-7031	Secondary Arab Boycott Of Israel	JUN 1992
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts	SEP 2001
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	JUN 1995
252.227-7015	Technical Data--Commercial Items	NOV 1995
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7019	Validation of Asserted Restrictions--Computer Software	JUN 1995
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000
252.227-7036	Declaration of Technical Data Conformity	JAN 1997
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.231-7000	Supplemental Cost Principles	DEC 1991
252.235-7011	Final Scientific or Technical Report	SEP 1999
252.242-7004	Material Management And Accounting System	DEC 2000
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.245-7001	Reports Of Government Property	MAY 1994
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

#### CLAUSES INCORPORATED BY FULL TEXT

##### 52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0.00 or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

- (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;
- (3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and
- (4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

## SECTION J List of Documents, Exhibits and Other Attachments

### CLAUSES INCORPORATED BY FULL TEXT

#### Ddl-J10 LIST OF ATTACHMENTS

Attachment J.1 – Contract Data Requirements List, DD1423

Attachment J.2 – Contract Security Classification Specification, DD254

Attachment J.3 – M782 Multi-Option Fuze Artillery (MOFA) TDP\*

Attachment J.4 – MOFA Hazard Components Safety Data Statements \*

Attachment J.5 – EX 437 MOD 0 NSWCDD Developed Preliminary Software\*

\*The three items above are available on a CD ROM by contacting the PCO Via email  
([vaughangr@nswc.navy.mil](mailto:vaughangr@nswc.navy.mil))

Attachment J.6 – Technical Specification (MOFN-PRF-0001)

Attachment J.7 – Navy Value Engineering Guide for Contractors (available upon request to the PCO)

Attachment J.8 – Past Performance Questionnaire

## SECTION K Representations, Certifications and Other Statements of Offerors

## CLAUSES INCORPORATED BY REFERENCE:

52.203-11	Certification And Disclosure Regarding Payments To Influence Certain Federal Transactions	APR 1991
52.222-38	Compliance with Veterans' Employment Reporting Requirements	DEC 2001
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	MAR 1998
252.225-7017	Prohibition on Award to Companies Owned by the People's Republic of China	FEB 2000
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government	JUN 1995

## CLAUSES INCORPORATED BY FULL TEXT

## Ddl-K20 AUTHORIZED NEGOTIATORS

The offeror shall provide the name and telephone number of personnel authorized to negotiate on behalf of the offeror:

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In addition, the offeror shall provide a facsimile number and an email address to which correspondence and documents may be forwarded to the offeror, both prior to contract award and following contract award:

Facsimile:

Email:

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#### 52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

#### 52.207-4 ECONOMIC PURCHASE QUANTITY--SUPPLIES (AUG 1987)

(a) Offerors are invited to state an opinion on whether the quantity(ies) of supplies on which bids, proposals or quotes are requested in this solicitation is (are) economically advantageous to the Government.

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Each offeror who believes that acquisitions in different quantities would be more advantageous is invited to recommend an economic purchase quantity. If different quantities are recommended, a total and a unit price must be quoted for applicable items. An economic purchase quantity is that quantity at which a significant price break occurs. If there are significant price breaks at different quantity points, this information is desired as well.

OFFEROR RECOMMENDATIONS  
PRICE  
ITEM QUANTITY QUOTATION TOTAL

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(c) The information requested in this provision is being solicited to avoid acquisitions in disadvantageous quantities and to assist the Government in developing a data base for future acquisitions of these items. However, the Government reserves the right to amend or cancel the solicitation and resolicit with respect to any individual item in the event quotations received and the Government's requirements indicate that different quantities should be acquired.

(End of provision)

#### 52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.



(End of provision)

#### 52.215-6 PLACE OF PERFORMANCE (OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, ( ) intends, ( ) does not intend [check applicable block] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

<p><b>Place of Performance(Street Address, City, State, County, Zip Code)</b></p>	<p><b>Name and Address of Owner and Operator of the Plant or Facility if Other Than Offeror or Respondent</b></p>
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(End of provision)

#### 52.215-7 ANNUAL REPRESENTATIONS AND CERTIFICATIONS--NEGOTIATION (OCT 1997)

The offeror has [check the appropriate block]:

\_\_\_\_\_ (a) Submitted to the contracting office issuing this solicitation, annual representations and certifications dated \_\_\_\_\_ (insert date of signature on submission) that are incorporated herein by reference, and are current, accurate, and complete as of the date of this proposal, except as follows (insert changes that affect only this proposal; if "none," so state):

\_\_\_\_\_ (b) Enclosed its annual representations and certifications.

(End of provision)

#### 52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

\_\_\_ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration(PROONet); or

\_\_\_ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2)\_\_\_ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: \_\_\_\_\_.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

(1) Be punished by imposition of a fine, imprisonment, or both;

(2) Be subject to administrative remedies, including suspension and debarment; and

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(End of provision)

## 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) [ ] It has, [ ] has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) [ ] It has, [ ] has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed

subcontractors, will be obtained before subcontract awards.

(End of provision)

52.222-25 AFFIRMATIVE ACTION COMPLIANCE (FEB 1984)

The offeror represents that

- (a) ☐ it has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or
- (b) ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

☐ (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

☐ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

[ ] (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

[ ] (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

#### 52.226-2 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (MAY 2001)

(a) Definitions. As used in this provision--

Historically black college or university means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority institution means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k, including a Hispanic-serving institution of higher education, as defined in Section 316(b)(1) of the Act (20 U.S.C. 1101a)).

(b) Representation. The offeror represents that it--

( ) is ( ) is not a historically black college or university;

( ) is ( ) is not a minority institution.

(End of provision)

#### 52.227-6 ROYALTY INFORMATION (APR 1984)

(a) Cost or charges for royalties. When the response to this solicitation contains costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

(1) Name and address of licensor.

(2) Date of license agreement.

(3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.

(4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.

(5) Percentage or dollar rate of royalty per unit.

(6) Unit price of contract item.

(7) Number of units.

(8) Total dollar amount of royalties.

(b) Copies of current licenses. In addition, if specifically requested by the Contracting Officer before execution of the contract, the offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

(End of provision)

#### 52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

#### I. DISCLOSURE STATEMENT--COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

(1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: \_\_\_\_\_ Name and Address of Cognizant ACO or Federal Official Where Filed: \_\_\_\_\_

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

(2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: \_\_\_\_\_ Name and Address of Cognizant ACO or Federal Official Where Filed: \_\_\_\_\_

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

(3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than \$50 million (of which at least one award exceeded \$1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

(4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

## II. COST ACCOUNTING STANDARDS--ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

( ) The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$25 million or more.

## III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

( ) YES ( ) NO

(End of clause)

252.225-7006 BUY AMERICAN ACT--TRADE AGREEMENTS--BALANCE OF  
PAYMENTS PROGRAM CERTIFICATE (MAR 1998)

a) Definitions. Caribbean Basin country end product, designated country end product, domestic end product NAFTA country end product, nondesignated country end product, qualifying country end product, and U.S. made end product have the meanings given in the Buy American Act--Trade Agreements--Balance of Payments Program clause of this solicitation.

(b) Evaluation. Offers will be evaluated in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement. Offers of foreign end products that are not U.S. made, qualifying country, designated country, Caribbean Basin country, or NAFTA country end products will not be considered for award, unless the Contracting Officer determines that there are no offers of such end products; or the offers of such end products are insufficient to fulfill the requirements; or a national interest exception to the Trade Agreements Act is granted.

(c) Certifications.

(1) The Offeror certifies that—

(i) Each end product, except the end products listed in paragraph (c)(2) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror must identify all end products that are not domestic end products.

(i) The Offeror certifies that the following supplies qualify as “U.S. made end products” but do not meet the definition of “domestic end product”:

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(insert line item number)

(ii) The Offeror certifies that the following supplies are qualifying country end products:

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(insert line item number)

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(insert country of origin)

(iii) The Offeror certifies that the following supplies qualify as designated country end products:

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(insert line item number)

\_\_\_\_\_  
(insert country of origin)

(iv) The Offeror certifies that the following supplies qualify as Caribbean Basin country end products:

\_\_\_\_\_  
(insert line item number)

\_\_\_\_\_  
(insert country of origin)

(v) The Offeror certifies that the following supplies qualify as NAFTA country end products:

\_\_\_\_\_  
(insert line item number)

\_\_\_\_\_  
(insert country of origin)

(vi) The following supplies are other nondesignated country end products.

Insert line item number	Insert country of origin

(End of clause)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

\_\_\_\_ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

\_\_\_\_ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

## SECTION L Instructions, Conditions and Notices to Bidders

## CLAUSES INCORPORATED BY REFERENCE:

52.204-6	Data Universal Numbering System (DUNS) Number	JUN 1999
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.215-1	Instructions to Offerors--Competitive Acquisition	MAY 2001
52.215-20	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data	OCT 1997
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions	JUN 1995

## CLAUSES INCORPORATED BY FULL TEXT

**SPECIAL NOTICE: The cost information required by this Section L pertains to CLINs 0001 and 0002 only. The offer for the Not-To-Exceed Fixed Price for Option 1, CLINs 0003 and 0004 shall be provided in Section B. No later than three months prior to the completion of CLINs 0001 and 0002, the contractor shall submit detailed cost and pricing data suitable for negotiation of a fair and reasonable price for CLIN 0003. Please note further that the Not-To-Exceed Price offered in CLIN 0003 shall be subject to downward negotiations only.**

## Ddl-L10 PROPOSAL PREPARATION REQUIREMENTS

Offerors are required to prepare their proposals in accordance with the following organization, content and format.

## (a) SOLICITATION, OFFER AND AWARD DOCUMENTS (SF 33 - RFP)

(1) This document, which may be used as part of the contract award document, shall be fully executed and returned as a separate document from the technical/management and cost proposals. Special attention should be taken to accurately enter the prices required in Section B, complete all Representations and Certifications in Section K and ensure that an authorized person signs the offer in Block 17 of Page 1. This document shall not be embellished with any covers or binding.

(2) Offerors are encouraged not to take exceptions to this solicitation, however, any exceptions taken to the specifications, or terms and conditions of this solicitation shall be identified in a cover letter and explained in detail in the appropriate section of the technical proposal.

## (b) TECHNICAL PROPOSAL

(1) The technical proposal shall not contain any reference to cost and shall be prepared in accordance with the following guidelines and the TECHNICAL PROPOSAL specific requirements below.

(2) The technical proposal should be written so that management and engineering oriented personnel can make a thorough evaluation and arrive at a sound determination as to whether the proposal meets the requirements of this solicitation. To this end, the proposal shall be so specific, detailed and complete as to clearly and fully demonstrate that the prospective contractor has a thorough understanding of the technical requirements contained in Section C of this solicitation.

(3) Statements such as "the offeror understands", "will comply with the statement of work," "standard procedures will be employed", "well known techniques will be used" and general paraphrasing of the statement of work are considered inadequate. The technical proposal must provide details concerning what the contractor will do and how it will be done. This includes a full explanation of the techniques, disciplines, and procedures proposed to be followed.

(4) Unnecessarily elaborate brochures or other presentations beyond that sufficient to present a complete and effective proposal are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Elaborate art work, expensive paper and bindings, or expensive visual and other presentation aids are neither necessary nor desired.

(5) In the event any portion of the technical proposal is written by anyone who is not a bona fide employee of the firm submitting the proposal, a certificate to this effect shall be furnished. It must be signed by a responsible officer of the offeror and shall show the author's name, employment capacity, the name of the person's firm, the relationship of that firm to the offeror's, and the portion of the technical proposal he/she wrote.

(6) Technical information previously submitted, if any, may not be considered by the Government; hence, any such information should not be relied upon or incorporated in the technical proposal by reference.

#### (c) COST OR PRICE PROPOSAL

The cost proposal shall provide full supporting detail for the prices listed in Section B of the proposal and shall be prepared in accordance with the COST PROPOSAL specific requirements listed below.

#### (d) MARKING OF PROPOSALS

Proposals shall be submitted as separate volumes, as follows:

Original

Copies

Volume I, Solicitation, Offer and Award (SF 33)	1	1
Volume II, Technical Proposal	1	4
Volume III, Cost or Price Proposal	1	4

The original of each volume shall be clearly identified as the "ORIGINAL" and bear original signatures. The copies shall be complete and clearly identified as "COPY."

#### TECHNICAL PROPOSAL – SPECIFIC REQUIREMENTS

The oral presentation described in Ddl-L24 below shall include an in-depth presentation of the following factors/subfactors:

Electronic Proximity Fuze Knowledge and Experience – This element is intended to demonstrate the offeror's understanding of electronic proximity fuze design. The offeror shall demonstrate its knowledge and experience of electronic proximity fuze design and manufacturing experiences focusing on large caliber items. The offeror shall demonstrate its knowledge and experience of protecting electronic proximity fuzes from electromagnetic effects.

Knowledge of M782 MOFA Design and Manufacture – This element is intended to demonstrate the offeror's technical in-depth understanding of the M782 fuze. The offeror shall demonstrate its technical understanding of the M782 Fuze, including the design, operation, manufacture, safety, and testing requirements of the following fuze subassemblies: Transceiver Assembly, Control Processor Assembly, Level 1 Assembly, Safe and Arm Device, Post Launch Battery Assembly, and Det/Delay Assembly.

Approach for Increasing Arming Distance – The offeror shall provide its technical approach for increasing the arming distance of the MOFA S&A to a 400 feet no-arm distance when fired from the MK 45 5" Gun Weapon System. The offeror shall discuss the S&A parameters that can have a significant affect on the arming distance, and which of these parameters will be modified to achieve the required arming distance.

Approach for Developing Inductive Set Capability – The offeror shall provide its technical approach for developing the inductive set capability with the MK 34 Fuze Setter in the MK 45 Gun Weapon System. The offeror shall address all inductive set interface and software requirements detailed in the SOW and MOFN-PRF-0001, including appendix A.

Manufacturing and Control - This factor is intended to demonstrate the offeror's approach to manufacturing the fuze. The offeror shall demonstrate its understanding of the M782 fuze manufacturing process, including proposed processes, equipment and facilities that will be used to manufacture and test fuzes. The offeror shall provide its approach to modifying the manufacturing process and test equipment to produce the EX 437 fuze. The offeror shall demonstrate its approach for meeting the quality assurance, configuration management, and documentation development provisions in the SOW. The offeror shall discuss its organizational

approach and ability to ensure accomplishment of program requirements through its Integrated Management Plan.

Key Personnel, Past Performance, and Schedule – See Ddl-L26

#### Ddl-L24 ORAL PRESENTATION – TECHNICAL AND MANAGEMENT UNDERSTANDING/CAPABILITY

(a) Offerors shall make an oral presentation to demonstrate their Technical and Management understanding and capability for this requirement. The presentation shall be followed by a question and answer session. Neither the oral presentation nor the question and answer session will constitute discussions, nor will they obligate the Government to conduct discussions. Specific items to be included shall cover Technical Understanding/Capability, manufacturing Control, and Schedule factors. The following paragraphs provide the rules/requirements for the oral presentation.

##### (b) Viewgraphs/Slides

(1) The offeror may make the oral presentation from hardcopy viewgraphs or from electronic media (PowerPoint, etc.). The original hardcopy transparencies or the original diskette of the electronic media of the oral presentation shall be submitted in a sealed package, that is submitted with the offer. These transparencies (or diskette) will be held by the Contracting Officer in the sealed package and will be provided to the offeror immediately prior to the start of the Oral Presentation. No other transparencies/diskette may be used during the Oral Presentation. Following the Oral Presentation, the Contracting Officer will retain the original transparencies/diskette. Following contract award, the original transparencies/diskette will be returned, if desired, to the offeror.

(2) Paper copies of the Oral Presentation transparencies. A separate package shall contain 6 paper copies of the transparencies/slides. These paper copies, submitted with the offer, will be opened by the Government and will be provided to the Government evaluators for study prior to receiving the Oral Presentation.

##### (c) General presentation Requirements

(1) Offerors must clearly demonstrate an understanding of Navy policies and procedures and all requirements covered in the RFP. The presentation must be specific, detailed, and complete. The offeror shall clearly demonstrate that he has a thorough comprehension of the Navy's requirement, has the technical capability and competence to fully perform the requirements described in the statement of work, and has the management resources and expertise to successfully carry out a contract of this type. Previously submitted data or prior experience presumed to be known to the Government (e.g., previous contracts performed for the Government) should not be relied upon by the offeror.

(2) The overall quality of the presentation will be evaluated in the context of being representative of the offeror's capabilities. Superfluous material or material which is not directly related to this acquisition should not be presented.

(d) Scheduling Oral Presentations

(1) To assist the Government in scheduling evaluators' time as well as presentation facilities, offerors that intend to submit a proposal as a prime (and make an Oral Presentation) are requested to submit a written non-binding notice of intent to the Contract Specialist, at the address shown in block 7 of the SF33, by facsimile to (540)653-6810 not later than 10 working days prior to the solicitation closing date.

(2) Oral Presentations will be scheduled to begin not earlier than 2 working days after the solicitation closing date. The order of presentation will be determined by random drawing by the Contracting Officer. No presentation will be scheduled on a Monday or on any day following a Federal holiday. Offerors will be notified of the date, time and location of the Oral Presentation within 1 working days after the closing date of the solicitation. The Navy reserves the right to reschedule the offeror's Oral Presentation at the discretion of the Contracting Officer. The offeror must make the Oral Presentation on the date scheduled in order to be considered for award.

(3) The Oral Presentation shall not exceed 3 hours in length. Breaks (not to exceed 30 minutes total) may be called by the presenters. The break(s) will not be included in the limitation for the Oral Presentation. The presentation will be followed by an approximate 90 minute break and then a question and answer session. The oral presentation will be made in the Government's facility. The Government will provide and set up the necessary viewgraph projector and screen. If the offeror elects to use electronic media, the offeror shall be responsible for furnishing all equipment (not including screen) for making the presentation. The presentation schedule will be included in the date notification given the offeror. The presentation schedule is anticipated to be similar to the one shown below:

0730 Presentation room opened  
0800 Sealed transparencies opened  
0815 Presentation begins  
break(s)  
1145 Presentation ends, break begins  
1315 Question and answer period

(e) Rules for the Oral Presentations

(1) The time limit for the Oral Presentation will be strictly enforced. The starting times and length of the break(s) are adjustable. The offeror is responsible for keeping track of the remaining time.

(2) There is no limit to the number of transparencies/slides in the Oral Presentation; however, only those transparencies/slides presented will be considered for evaluation purposes.

(3) Offerors are limited to the use of pre-prepared overhead transparencies/slides only. The transparencies/ slides and hard copies thereof shall be consecutively numbered. During the question and answer session, the contractor may "create" new transparencies through the use of blank transparencies and markers. Necessary materials shall be provided by the contractor. The Contracting Officer will retain these original transparencies.

(4) Offerors are limited to no more than 2 presenters. Presenters shall be senior level Key Personnel the offeror will actually employ to perform the work under the prospective contract and shall include the proposed Program Manager. The offeror is encouraged to have proposed subcontractor personnel participate. The same presenters shall be present for the question and answer session and shall address questions directed to them. In addition to the presenters, offerors may also have no more than one additional person attend as an observer. This individual will not be seated near the presenters during the presentation or the subsequent question and answer session and will make no verbal, written, or other contact with the presenters. A list of presenters and observer's names (to include corporate affiliation and title) shall be provided with submission of the hardcopy transparencies/ slides. If any last minute substitutions are necessary, an updated list of presenters shall be provided to the Government prior to the start of the presentation. No substitutions (of presenters or observers) will be allowed between the oral presentation and the Q&A session.

(5) The presentation will not be recorded. Neither the Navy nor the offeror will videotape or use audio or video recording devices of any kind.

(6) The presentation shall not address cost or fee. Information submitted as part of the written portion of the proposal need not be repeated in the presentation.

(7) The Navy will not ask questions during the Oral Presentation; however, questions will be asked during the question and answer session.

(8) The Navy will not inform offerors of their strengths, deficiencies or weaknesses during the presentation.

(9) An invitation to make an oral presentation does not constitute a determination that the offeror has been determined to be in the Competitive Range.

(f) Organization and Minimum Content of the Oral Presentation – In order to facilitate evaluation, it is desired that the Oral Presentation be structured into three primary components:

(1) Technical Understanding/Capability

(2) Manufacturing and Control



### (3) Schedule Factors

(10) Management – The offeror shall demonstrate their management capability by presenting a Management Approach which shall include as a minimum, the following:

(i) Organization chart which shows the planned location of this work effort within the offeror's organization and the relationship to and location of the organizational unit responsible for contract administration.

(ii) Description of the Program Manager's authority and responsibilities.

(iii) Organizational location and individual responsibilities for proposed Key Personnel.

(iv) Identification of the planned utilization of financial and administrative management controls and processes to manage and control resources. The proposed use of any automated tools shall be included. Direct and indirect cost containment initiatives shall be addressed.

(v) Corporate Resources – Identify corporate facility and equipment resources that will be used to support efforts under this contract. Of specific interest are facility location and size, and computer hardware and software resources. Identify specific requirements for Government Furnished Equipment (GFE).

(vi) Internal Control/QA Process – Provide a detailed description of the internal control processes to ensure the quality and timeliness of all efforts performed as well as CDRL items delivered.

(vii) Subcontractor Control – If direct subcontracting is proposed, offerors shall address their policies and practices regarding the overall management of efforts performed by subcontractors.

### Ddl-L26 TECHNICAL PROPOSAL – SPECIFIC REQUIREMENTS – PERSONNEL, PAST PERFORMANCE, AND MANDATORY REQUIREMENTS

The offeror's written technical proposal should address the Personnel factor, Past Performance, and Mandatory Requirements as follows:

(a) Key Personnel Resumes - The minimum number of resumes to be submitted for each Key Person contract labor category is shown in the following table.

KEY LABOR CATEGORY	# RESUMES
Program Manager	1
Sr. Electrical Engineer	2
Sr. Mechanical Engineer	1
Sr. Software Engineer	1
Total Resumes	5

(i) In order to facilitate proposal evaluation, all resumes shall be provided in the format set forth in Section H. The cutoff for experience claimed shall be the closing date of the solicitation. Each resume shall be no more than 3 pages in length.

(b) Past Performance

(1) The proposal shall contain information concerning the offeror's experience in performance of contracts for similar services of the variety and magnitude set forth in the RFP. This information should include data as to the scope of work required under such contracts, the term of those contracts, number and types of personnel furnished, the contracting agencies/offices that awarded the contracts, applicable contract numbers, and any other applicable information. Information regarding past performance may be obtained from several sources, as indicated below.

(2) Past Performance Reference List

(i) All offerors shall prepare and submit a Past Performance Reference List as part of the written Technical Proposal. The Past Performance Reference List shall contain the following information for each relevant contract completed within the last three years and those currently in progress:

- (A) Contract Number
- (B) Contract Amount/Value
- (C) Description of Work Performed to include approximate number of direct man-years per year provided.
- (D) Identification of the Statement of Work functional area(s) (e.g., C.xx -- XXXXX) for which the referenced contract demonstrates past performance.
- (E) Note if performed as a prime or subcontractor
- (F) Name, title, address, and phone number of person to whom the questionnaire was mailed.

(G) Name, address and phone number of the Contracting Officer and of the COR

(H) Date the questionnaire was mailed and a list of all recipients of the questionnaire..

(3) Contract Listed in CPARS (PPAIS). The Government intends to review Contractor Performance Assessment Reporting System (CPARS) data and other existing past performance rating on relevant contracts.

(4) Contracts Not Listed in CPARS – Past Performance Questionnaire

(i) The offeror is responsible for the distribution of all Past Performance Questionnaires (Attachment J.xx). Questionnaires should be distributed not later than 7 days after receipt of the solicitation. It is in the offeror's best interest to do a thorough and prompt job of distributing the Past Performance Questionnaires.

(ii) The offeror shall send a copy of the questionnaire directly to the COR for all relevant contracts completed in the last three years and contracts currently in progress. The offeror shall request the recipients of the questionnaire to complete the document and forward it to the Government Contracting Officer at the following address:

Contracting Officer  
Naval Surface Warfare Center, Dahlgren Division  
Attn: Code XDS105  
17320 Dahlgren Road  
Dahlgren, VA 22448-5100

(iii) The Navy will attempt to contact those offices which do not respond to the questionnaire based upon the information in the Past Performance Reference List.

(5) All offerors may provide any other information regarding their past performance of contracts similar to the Government's requirement that they would like the Government to consider. Such information may be in the nature of :

(i) Additional information which the Government has readily available, for example, a synopsis of data in the CPARS system;

(ii) Information which the offeror considers essential to the Government's evaluation of Section M factors and/or subfactors; or

(iii) Explanatory information of substandard or poor performance and the corrective actions taken to prevent a recurrence.

(6) For offerors that are large businesses, the offeror shall provide a chart with narrative that provides the extent of prior use of small, small disadvantaged, and women-owned businesses as subcontractors. In addition, provide a copy of the SF294 for each contract listed in

the Past Performance Reference List with a value in excess of \$500K. For completed contracts, provide the final SF294; for contracts in process, provide the SF294 for the latest reporting period.

(7) Past performance will be used as both an evaluation factor and as a source of information for a responsibility determination. Offerors that do not have relevant past performance may base the questionnaires on work performed by the proposed Key Personnel. The cutoff date for receipt by the Government of responses to the questionnaire is two weeks after the closing date of the solicitation. Offerors are encouraged to provide information on problems encountered on the identified contracts and the offeror's corrective actions taken.

#### (c) Contract Mandatory Requirements

The contractor shall address his ability to (or plans for meeting at time of award) meet each of the contract mandatory requirements as discussed in Section H, MINIMUM REQUIREMENTS.

#### Ddl-L28 NOTICE OF INTENT TO USE CONTRACTOR TECHNICAL ADVISORS FOR PROPOSAL EVALUATION

(a) The Government intends to utilize experts from the following firms as technical advisors during the technical proposal evaluation phase: BAE Systems. All contractors providing technical advisors will be subject to appropriate organizational conflict of interest and non-disclosure restrictions.

(b) Contractor technical advisors will act in an advisory capacity only and their involvement will be limited to the specific areas of technical expertise required. The final Government technical evaluation of offers will not be made available to or released to contractor technical advisors.

(c) Offerors shall, in their technical proposal, provide written consent to the use of the named contractor technical advisors during the technical evaluation of proposals. This consent will enable the Government to fully evaluate the merits of each technical proposal in accordance with Section M of the solicitation. Failure to provide the requisite consent will preclude a complete technical evaluation of the offeror's proposal and may render it unacceptable.

#### Ddl-L31 COST PROPOSAL – SPECIFIC REQUIREMENTS – COMPLEX SUPPLIES/R&D ITEMS

The cost proposal must provide breakdowns for the following basic cost elements, as applicable:

(a) Purchased/Subcontracted Materials and Services. Provide a consolidated priced summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing (vendor quotes, invoice prices, etc.). Include raw materials, parts, components, assemblies, and services to be produced or performed by others.

For all items proposed, identify the item and show the source, quantity, and price. Conduct price analyses of all subcontractor proposals. Conduct cost analyses for all subcontracts when cost or pricing data are submitted by the subcontractor. Include these analyses as part of your own cost proposal submissions. Submit the subcontractor cost or pricing data as part of your own cost or pricing data. These requirements also apply to all subcontractors if required to submit cost or pricing data.

(1) Adequate Price Competition. Provide data showing the degree of competition and the basis for establishing the source and reasonableness of price for those acquisitions (such as subcontracts, purchase orders, material order, etc.) priced on the basis of adequate price competition. For interorganizational transfers priced at other than the cost of comparable competitive commercial work of the division, subsidiary, or affiliate of the contractor, explain the pricing method (see FAR 31.205-26(e)).

(2) All Other. Provide data showing the basis for establishing source and reasonableness of price. In addition, provide a summary of your cost analysis and a copy of cost or pricing data submitted by the prospective source in support of each subcontract, or purchase order. For standard commercial items fabricated by the offeror that are generally stocked in inventory, provide a separate cost breakdown, if priced based on cost. For interorganizational transfers priced at cost, provide a separate breakdown of cost elements. Analyze the cost or pricing data and submit the results of your analysis of the prospective source's proposal. When submission of a prospective source's cost or pricing data is required as described in this paragraph, it must be included along with your own cost or pricing data submission, as part of your own cost or pricing data. You must also submit any other cost or pricing data obtained from a subcontractor, either actually or by specific identification, along with the results of any analysis performed on that data.

(b) Direct Labor. Provide per CLIN (CLINs 0001 and 0003) breakdown of labor hours, rates, and cost by appropriate category, and furnish bases for estimates.

(c) Indirect Costs. Indicate how you have computed and applied your indirect costs, including cost breakdowns. Show trends and budgetary data to provide a basis for evaluating the reasonableness of proposed rates. Indicate the rates used and provide an appropriate explanation. Offerors shall list proposed indirect rates, DCAA recommended rates and actual rates (audited and unaudited). If rates are negotiated forward pricing rates, a copy of the current forward pricing rate agreement shall be provided. If the rates are not negotiated forward pricing rates, then the basis for the proposed rates shall be explained. This section shall also include historically proposed, DCAA recommended and actual (audited and unaudited) indirect rates experienced by the contractor within the past three years and the basis for any changes to these rates.

(d) Other Costs. List all other costs not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework, and Federal excise tax on finished articles) and provide bases for pricing.

(e) Facilities Capital Cost of Money. When you elect to claim facilities capital cost of money as an allowable cost, you must submit DD Form 1861 and Form CASB-CMF and show the calculation of the proposed amount (see FAR 31.205-10).

#### Ddl-L36 COST PROPOSAL – SPECIFIC REQUIREMENTS – START DATE FOR USE IN COST PROPOSAL

In order to allow for procurement lead time and a fair and equal evaluation of all proposals submitted under this competitive procurement, all proposals shall be based on a contract performance start date of 15 May 2003. This date is only an estimate of the anticipated contract performance start date and will be used for the purpose of proposal evaluation only. A definitive contract performance start date will be incorporated into the contract award document.

#### Ddl-L40 SUBMISSION OF QUESTIONS BY POTENTIAL OFFERORS

It is the offeror's responsibility to bring to the attention of the Contracting Officer at the earliest possible time, but prior to the closing date, any ambiguities, discrepancies, inconsistencies, or conflicts between the Statement of Work (SOW) and other solicitation documents attached hereto or incorporated by reference. All questions are requested in writing (email is acceptable) by 07 February 2003.

#### Ddl-L42 PRE-AWARD FACILITY SECURITY CLEARANCE

(a) No award will be made to any offeror which does not possess a facility security clearance issued by the Defense Investigative Service at the required security level. The Naval Surface Warfare Center, Dahlgren Division will initiate appropriate security clearance action for any apparent successful offeror which does not already possess such clearance. The government is not obligated to delay award pending security clearance of any offeror.

(b) The security classification of this procurement is specified in the Contract Security Classification Specification, DD Form 254, attached hereto.

#### HQ L-2-0009 SMALL BUSINESS SUBCONTRACTING PLAN (NAVSEA) (JUN 1999)

Offer shall submit as part of its proposal a written proposed subcontracting plan in accordance with the clause entitled "SMALL BUSINESS SUBCONTRACTING PLAN" (FAR 52.219-9). The plan shall include the Congressionally mandated five percent (5%) goal for small disadvantaged business concerns or a detailed explanation as to why the goal cannot be included in the plan.

#### HQ L-2-0012 USE OF NON-DEVELOPMENTAL ITEMS (NDI) (NAVSEA) (MAY 1993)

(a) Use of NDI is the preferred method of satisfying operational requirements of the Navy where such use does not degrade the operational or performance requirements. The term NDI means:

- (1) Any item of supply that is available in the commercial marketplace;
- (2) Any previously developed item of supply that is in use by a department or agency of the United States, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;
- (3) Any item of supply described in paragraph (1) or (2) that requires only minor modification in order to meet the requirements of the procuring agency; or
- (4) Any item of supply that is currently being produced that does not meet the requirements of paragraph (1), (2), or (3) solely because the item:
  - (i) is not yet in use; or
  - (ii) is not yet available in the commercial marketplace.

(b) Offerors are encouraged to propose NDI or partial NDI alternatives to conventional R&D or MIL-SPEC production hardware or software requirements of this solicitation at all levels of the work breakdown structure (i.e., end-item, sub-system, component, piece part, etc.). All proposed NDI alternatives shall be clearly identified in the proposal. The intent of the NDI alternative is to provide the Navy with effective and economic solutions to its essential operational requirements.

#### 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Cost Plus Fixed Fee contract for CLIN 0001, and Firm Fixed Price Contract for CLIN 0003.

#### 52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Commander, Naval Surface Warfare Center, Dahlgren Division  
Attn: Code XDC1  
17320 Dahlgren Road  
Dahlgren, VA 22448-5100

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.



## SECTION M Evaluation Factors for Award

## CLAUSES INCORPORATED BY REFERENCE:

52.217-5 Evaluation Of Options

JUL 1990

## CLAUSES INCORPORATED BY FULL TEXT

## Ddl-M10 GREATEST VALUE EVALUATION

(a) The contract resulting from this solicitation will be awarded to that responsible offeror whose offer, conforming to the solicitation, is determined most advantageous to the Government, cost/price and other factors considered. The offeror's proposal shall be in the form prescribed by this solicitation and shall contain a response to each of the areas identified which affects the evaluation factors for award. Proposals will be evaluated on the factors listed below, as well as other criteria identified in Section M of the solicitation:

## EVALUATION FACTORS

FACTOR/SIGNIFICANT SUBFACTOR
TECHNICAL UNDERSTANDING/CAPABILITY
1. Electronic Proximity Fuze Knowledge and Experience
2. Knowledge of M782 MOFA Design and Manufacture.
3. Approach for Increasing Minimum Arming Distance.
4. Approach for Developing Inductive Set Capability.
MANUFACTURING AND CONTROL
KEY PERSONNEL
PAST PERFORMANCE
SCHEDULE

Technical Understanding/Capability is the most important evaluation factor, and the subfactors listed below Technical Understanding/Capability are approximately equal in value. The manufacturing and Control and Schedule Factors are approximately equal in value, and more important than Key Personnel and Past performance which are approximately equal in value.

A Risk Assessment will be conducted at each of the factors and subfactors set forth above

(b) Proposals which are unrealistic in terms of technical or schedule commitments or unrealistically high or low in cost may be deemed reflective of an inherent lack of technical competence, or indicative of a failure to comprehend the complexity and risks of the proposed work, and may be grounds for rejection of the proposal. If the proposed contract requires the delivery of data, the quality of organization and writing reflected in the proposal will be considered to be an indication of the quality of organization and writing which would be prevalent in the proposed deliverable data. Subjective judgment on the part of the Government evaluators is implicit in the entire process. Throughout the evaluation, the Government will consider "correction potential" when a deficiency is identified.

(c) Although cost is not scored, its importance will not be ignored. The degree of importance of the cost will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based. Cost for the design qualification effort, as well as the not-to-exceed cost for the Production Option will be considered in the source selection

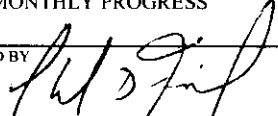
(d) In evaluating cost type offers, realism of the offeror's estimated cost will be considered. "Realism of Estimated Cost" is determined by reference to the costs which the offeror can reasonably be expected to incur in performance of the contract in accordance with the offer. Unrealistic personnel compensation rates will be considered in the cost realism analysis and may be considered in the technical analysis which could reduce the technical score. The purpose of the evaluation is to: (1) verify the offeror's understanding of the requirements; (2) assess the degree to which the cost proposal reflects the approaches and/or risk that the offeror will provide the supplies or services at the proposed costs; and (3) assess the degree to which the cost included in the cost proposal accurately represents the effort described in the technical proposal. The proposed costs may be adjusted for purposes of evaluation based on the results of the cost realism evaluation.

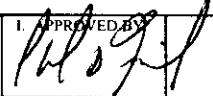
(e) The Government will evaluate past performance as a factor for award. To allow for the evaluation of the factors and /or subfactors specified in Section M of the solicitation, the Government intends to review Contractor Performance Assessment Reporting System (CPARS) ratings and other existing past performance ratings on relevant contracts. The Government may also review other relevant past performance information contained in either local files or from other Government sources. The Government may also consider information from past performance questionnaires, if required by Section L. General trends in a contractor's past performance will also be considered. Offerors without a past performance history will be evaluated in a manner that neither rewards nor penalizes the offeror.

(f) The Government may award a contract on the basis of initial offers received, without discussions. Therefore, each initial offer should contain the offeror's best terms from a cost or price and technical standpoint. However, if considered necessary by the Contracting Officer, discussions will be conducted with only those offerors determined to have a reasonable chance for award.

(g) The Government reserves the right to make an award to other than the lowest priced offeror or to the offeror with the highest technical score if the Contracting Officer determines that to do so would result in the greatest value to the Government.



<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)						Form Approved OMB No. 0704-0188				
<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>										
<b>A. CONTRACT LINE ITEM</b>					<b>B. EXH/ATCH NO.</b>		<b>C. CATEGORY:</b> TDP _____ TM _____ OTHER _____			
<b>D. SYSTEM/ITEM</b> EX 437 MULTI-OPTION FUZE			<b>E. CONTRACT/PR NO.</b>		<b>F. CONTRACTOR</b>					
<b>1. DATA ITEM NO.</b> A001		<b>2. TITLE OF DATA ITEM</b> REQUEST FOR WAIVERS			<b>3. SUBTITLE</b>					
<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80641B			<b>5. CONTRACT REFERENCE</b> SOW C.13.1; C.13.2.1; C.21.1.1		<b>6. REQUIRING OFFICE</b> NSWCDD G34					
<b>7. DD250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b>	<b>10. FREQUENCY</b> AS REQD	<b>12. DATE OF FIRST SUBMISSION</b> SEE 16		<b>14. DISTRIBUTION</b>					
<b>8. APP CODE</b> SEE 16	<b>D</b>	<b>11. AS OF DATE</b> SEE 16	<b>13. DATE OF SUBMISSION</b> SEE 16		<b>a. ADDRESSEE</b>		<b>b. COPIES</b>			
<b>16. REMARKS:</b> EACH SUBMITTED WAIVER (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED." BLOCK 4: CONTRACTOR FORMAT ACCEPTABLE  BLOCK 8: SUBMIT WAIVERS FOR CRITICAL, MAJOR AND MINOR WAIVERS TO MOFN-PRF-000 FOR NAVY APPROVAL, SUPPORTING DATA IS REQUIRED. SUBMIT ANY WAIVERS TO CONTRACTOR BASELINE AFFECTING SAFETY FOR NAVY APPROVAL  BLOCKS 10, 12 AND 13: SUBMIT ALL WAIVERS TO MOFN-PRF-0001 OR ANY SAFETY RELATED WAIVERS FOR NAVY APPROVAL NLT 10 DAYS AFTER KNOWN. ALLOW 20 DAYS FROM RECEIPT FOR NAVY RESPONSE. SUBMIT INFORMATION COPIES FOR WAIVERS (NON-SAFETY TYPE) TO CONTRACTORS BASELINE NLT 10 DAYS AFTER IMPLEMENTING (APPROVAL NOT REQUIRED).  SUBMIT BY ELECTRONIC MAIL. SUBMIT COPIES WITH MONTHLY PROGRESS REPORTS.							<b>DRAFT</b>	<b>FINAL</b>		
								<b>REG</b>	<b>REPRO</b>	
					NSWCDD G34			1	2	
					NSWCDD Code 4025				1	
					<b>15. TOTAL</b>		1	3		
<b>1. DATA ITEM NO.</b> A002		<b>2. TITLE OF DATA ITEM</b> REQUEST FOR DEVIATIONS			<b>3. SUBTITLE</b>					
<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80640B			<b>5. CONTRACT REFERENCE</b> SOW C.13.1; C.13.2.1; C.21.1.1		<b>6. REQUIRING OFFICE</b> NSWCDD G34					
<b>7. DD250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b>	<b>10. FREQUENCY</b> AS REQD	<b>12. DATE OF FIRST SUBMISSION</b> SEE 16		<b>14. DISTRIBUTION</b>					
<b>8. APP CODE</b> SEE 16	<b>D</b>	<b>11. AS OF DATE</b> SEE 16	<b>13. DATE OF SUBMISSION</b> SEE 16		<b>a. ADDRESSEE</b>		<b>b. COPIES</b>			
<b>16. REMARKS:</b> EACH SUBMITTED DEVIATION (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED." BLOCK 4: CONTRACTOR FORMAT ACCEPTABLE  BLOCK 8: SUBMIT DEVIATIONS FOR CRITICAL, MAJOR AND MINOR WAIVERS TO MOFN-PRF-000 FOR NAVY APPROVAL, SUPPORTING DATA IS REQUIRED. SUBMIT ANY DEVIATIONS TO CONTRACTOR BASELINE AFFECTING SAFETY FOR NAVY APPROVAL  BLOCKS 10, 12 AND 13: SUBMIT ALL WAIVERS TO MOFN-PRF-0001 OR ANY SAFETY RELATED DEVIATIONS FOR NAVY APPROVAL NLT 10 DAYS AFTER KNOWN. ALLOW 20 DAYS FROM RECEIPT FOR NAVY RESPONSE. SUBMIT INFORMATION COPIES FOR DEVIATIONS (NON-SAFETY TYPE) TO CONTRACTORS BASELINE NLT 10 DAYS AFTER IMPLEMENTING (APPROVAL NOT REQUIRED).  SUBMIT BY ELECTRONIC MAIL. SUBMIT COPIES WITH MONTHLY PROGRESS REPORTS.							<b>DRAFT</b>	<b>FINAL</b>		
								<b>REG</b>	<b>REPRO</b>	
					NSWCDD G34			1	2	
					NSWCDD Code 4025				1	
					<b>15. TOTAL</b>		1	3		
<b>PREPARED BY</b> GJ BRYANT CM/DM		<b>H. DATE</b> 1/9/03	<b>I. APPROVED BY</b> 		<b>J. DATE</b> 1/9/03					

<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)					Form Approved OMB No. 0704-0188		
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<b>A. CONTRACT LINE ITEM</b>				<b>B. EXH/ATCH NO.</b>	<b>C. CATEGORY:</b> TDP      TM      OTHER		
<b>D. SYSTEM/ITEM</b> EX 437 MULTI-OPTION FUZE		<b>E. CONTRACT/PR NO.</b>		<b>F. CONTRACTOR</b>			
<b>1. DATA ITEM NO.</b> A003		<b>2. TITLE OF DATA ITEM</b> ENGINEERING CHANGE PROPOSAL			<b>3. SUBTITLE</b>		
<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80639C		<b>5. CONTRACT REFERENCE</b> SOW C.13.1; C.13.2.1; C.21.1.1			<b>6. REQUIRING OFFICE</b> NSWCDD G34		
<b>7. DD250 REQ</b> LT	<b>9. DIST STATEMENT REQUIRED</b>	<b>10. FREQUENCY</b> SEE 16	<b>12. DATE OF FIRST SUBMISSION</b> SEE 16		<b>14. DISTRIBUTION</b>		
<b>8. APP CODE</b> SEE 16	<b>D</b>	<b>11. AS OF DATE</b> SEE 16	<b>13. DATE OF SUBMISSION</b> SEE 16		<b>a. ADDRESSEE</b>	<b>b. COPIES</b>	
<b>16. REMARKS:</b> EACH SUBMITTED ECP (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLOCK 8: (1) SUBMIT CLASS 1 AND 2 ENGINEERING CHANGE PROPOSALS TO THE TECHNICAL SPECIFICATION MOFN-PRF-0001. NAVY APPROVAL REQUIRED. (2) SUBMIT INFORMATION COPIES OF ENGINEERING CHANGE PROPOSALS FOR CHANGES TO THE GOVERNMENT FURNISHED BASELINE AFTER CDR FOR INFO. NO NAVY APPROVAL REQD. 3) SUBMIT CLASS 1 AND CLASS 2 ECPS TO ANY CHANGE AFFECTING SAFETY, REQUIRES GOVERNMENT APPROVAL.  BLOCKS 10, 12 AND 13: 1) SUBMIT ENGINEERING CHANGE PROPOSALS TO MOFN-PRF-0001 OR CHANGES AFFECTING SAFETY FOR NAVY APPROVAL NLT 10 DAYS FROM TIME KNOWN. ALLOW 20 DAYS FOR GOVERNMENT REVIEW. 2) COPIES ARE TO BE SUBMITTED WITH EACH MONTHLY PROGRESS REPORT.  SUBMIT BY ELECTRONIC MAIL CONTRACTOR FORMAT IS ACCEPTABLE					<b>DRAFT</b>	<b>FINAL</b>	
						<b>REG</b>	<b>REPRO</b>
				NSWCDD G34		1	2
				NSWCDD CODE 4025			1
				<b>15. TOTAL</b>	1	3	
<b>1. DATA ITEM NO.</b> A004		<b>2. TITLE OF DATA ITEM</b> NOTICE OF REVISION (NOR)			<b>3. SUBTITLE</b>		
<b>4. AUTHORITY (Data Acquisition Document No.)</b> DI-CMAN-80642C		<b>5. CONTRACT REFERENCE</b> SOW C.13.1; C.13.2.1; C.21.1.1			<b>6. REQUIRING OFFICE</b> NSWCDD G34		
<b>7. DD250 REQ</b>	<b>9. DIST STATEMENT REQUIRED</b>	<b>10. FREQUENCY</b>	<b>12. DATE OF FIRST SUBMISSION</b> SEE 16		<b>14. DISTRIBUTION</b>		
<b>8. APP CODE</b> SEE 16	<b>D</b>	<b>11. AS OF DATE</b> SEE 16	<b>13. DATE OF SUBMISSION</b> SEE 16		<b>a. ADDRESSEE</b>	<b>b. COPIES</b>	
<b>16. REMARKS</b> SUBMIT NOTICES OF REVISION(S) WITH EACH PROPOSED ECP. ONE NOR SHALL BE PREPARED FOR EACH AFFECTED DOCUMENT, LIST AND DETAIL SPECIFICATION. SPECIFICATION. BLOCK 8: (1) APPROVAL OF CORRESPONDING ECP TO MOFN-PRF-0001 WILL INCLUDE THE TECHNICAL REVIEW OF EACH NOTICE OF REVISION. (2) SUBMIT CORRESPONDING INFORMATION COPIES OF NORS FOR EACH ECP PACKAGE, SUBMIT BY ELECTRONIC MAIL. THESE NORS DO NOT REQUIRE NAVY APPROVAL.  BLOCKS 10, 12 AND 13: COPIES ARE TO BE SUBMITTED WITH EACH MONTHLY PROGRESS REPORT. GOVERNMENT REVIEW WILL BE CONCURRENT WITH ASSOCIATED ECP..  CONTRACTOR FORMAT IS ACCEPTABLE					<b>DRAFT</b>	<b>FINAL</b>	
						<b>REG</b>	<b>REPRO</b>
				NSWCDD G34		1	2
				NSWCDD CODE 4025			1
				<b>15. TOTAL</b>	1	3	
<b>G. PREPARED BY</b> GJ BRYANT CM/DM		<b>H. DATE</b> 1/9/03	<b>I. APPROVED BY</b> 		<b>J. DATE</b> 1/9/03		

- 6.a Reproductions shall include and hard copies only.
- 6.b Digital data shall be prepared IAW vector graphics IGES, class II engineering drawings. Document format shall be standard industry practices. Files shall be submitted in DFX format.
- 6.c Dual dimensioning not required.
- 6.d The use of unique company standards is acceptable but will require sufficient disclosure to define product definition.
- 6.e Government callouts shall be where items are not covered by commercially recognized or industry recognized standards and specifications.
- 6.f Undimensioned drawings and printed wiring master pattern drawings shall be provided on dimensionally stable material or appropriate digital data suitable for generating duplicate printed wiring master patterns.
- 6.g A disclosure statement "Disclosure Statement D" shall be on each drawing.

<b>TDP OPTION SELECTION WORKSHEET</b> <b>SPECIAL INSPECTION EQUIPMENT DRAWINGS AND ASSOCIATED LISTS</b>									
A. CONTRACT NO.	B. EXHIBIT/ATTACHMENT Attachment 1			C. CLIN			CDRL DATA ITEM NO. A005		
<b>1. DELEVERABLE PRODUCT (x and complete as applicable)</b>									
X	a. ORIGINALS (Drawing masters) (Identify specification, type grade and class, etc) Standard Commercial type and class								
X	b. REPRODUCTIONS (Identify specification, type grade and class, etc) Standard Commercial type and class								
X	c. DIGITAL DATA (Identify specification, exchange media, etc) See 6.b								
<b>2. CAGE CODE AND DOCUMENT NUMBERS (x one)</b>									
X	a. CONTRACTOR								
	b. GOVERNMENT (complete (1) and (2) or (3))								
(1) Use Cage Code			(2) Use document numbers			(3) To be assigned by:			
<b>3. DRAWINGS FORMTS AND DRAWING FORMS. (x one and complete as applicable)</b>									
X	a. CONTRACTOR FORMATS. Forms to be supplied by the contractor								
	b. GOVERNMENT FORMATS ( Forms to be supplied by the contractor Samples to be supplied by NSWCCD								
	c. GOVERNMENT FORMATS. Forms to be supplied as government furnished material								
<b>4. TYPES AND QUANTITY OF DRAWING SELECTION (x one)</b>									
X	a. CONTRACTOR SELECTS					b. Government selects (specify in item 9)			
<b>5. ASSOCIATED LISTS (x and complete as applicable)</b>									
X	a. PARTS LISTS (x one)		(1) Integral		(2) Separate	X	(3) Contractors option		
	b. DATA LISTS (x one)	X	(1) none		(2) Required (Specify levels of assy)				
	c. INDEX LISTS (x one)	X	(1) none		(2) Required (Specify levels of assy)				
<b>6. OTHER TAILORING (ATTACH ADDITIONAL SHEETS AS NECESSARY)</b> See sheet 2									

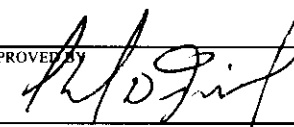
DD Form 2554-5

**CONTRACT DATA REQUIREMENTS LIST**

(2 DATA ITEMS)

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A. CONTRACT LINE ITEM					B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. AO05		2. TITLE OF DATA ITEM SPECIAL INSPECTION EQUIPMENT DESCRIPTIVE DOCUMENTATION				3. SUBTITLE			
4. AUTHORITY(Data Acquisition Document No.) DI-SESS-81004B (TAILORED)		5. CONTRACT REFERENCE SOW C.9.1; C.12				6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY ONE /R	12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION				
8. APP CODE A	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES		
16. REMARKS BLOCK 8: APPROVAL IS FOR TECHNICAL CONTENT. ALLOW 45 DAYS FOR REVIEW AND APPROVAL.  BLOCKS 12 AND 13: REPRODUCIBLE COPIES OF ALL DOCUMENTATION SHALL BE SUBMITTED PRIOR TO INITIATION TO PRODUCTION. ALLOW THE GOVERNMENT 45 DAYS FOR REVIEW AND APPROVAL. SUBMIT ELECTRONICALLY.  BLOCK 4: DOCUMENTATION THAT CAN NOT BE DEFINED BY NORMAL DRAWING AND SPECIFICATION PRACTICES SHALL BE PREPARED TO PROVIDE THE INFORMATION WHERE BY PERSONNEL, NOT HAVING DETAILED KNOWLEDGE OF THE INSPECTION EQUIPMENT MAY SET UP, PROGRAM, OPERATE, CALIBRATE, AND MAINTAIN A SPECIFIC ITEM OF INSPECTION EQUIPMENT WITHOUT THE ASSISTANCE OF A DESIGN CONTRACTOR'S FACILITIES OR HIGHLY TRAINED PERSONNEL. THIS DATA CAN BE SUBMITTED ELECTRONICALLY.							DRAFT	FINAL	
								REG	REPRO
					NSWCDD G34			1	2
					NSWCDD CODE 4025				1
					15. TOTAL			1	3
1. DATA ITEM NO. AO06		2. TITLE OF DATA ITEM PERFORMANCE COST REPORT				3. SUBTITLE			
4. AUTHORITY(Data Acquisition Document No.) DI-FNCL-80912		5. CONTRACT REFERENCE SEE SOW SECTION C.14.4				6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY MTHLY	12. DATE OF FIRST SUBMISSION 30 DAC		14. DISTRIBUTION				
8. APP CODE	D	11. AS OF DATE 30 DAC	13. DATE OF SUBMISSION		a. ADDRESSEE		b. COPIES		
16. REMARKS  BLK.: 10, 11, 12: ONE (1) COPY OF THE PERFORMANCE COST REPORT S SHALL BE DELIVERED TO MARKED "ADVANCE COPY" BY THE FIFTH WORKING DAY OF EACH MONTH TO G34 (FINCH); IN THE CASE OF AN INDICATED COST OVERRUN, REPORTING SHALL BE DEVELOPED TO GREATER DETAIL AND FREQUENCY AT THE DISCRETION OF THE NAVY. VARIANCE EXPLANATIONS FOR CUMULATIVE DATA THROUGH THE APPLICABLE MONTH REPORTING ELEMENTS THAT EXCEED MUTUAL AGREED TOLERANCES							DRAFT	FINAL	
					NSWCDD G34 (FINCH)		1		1
					NSWCDD CODE 4025				1
					NSWCDD XDS10 (VAUGHAN)				1
					15. TOTAL		1		3
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY 		J. DATE 1/9/03				



# CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)

Form Approved  
OMB No. 0704-0188

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A. CONTRACT LINE ITEM				B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A007		2. TITLE OF DATA ITEM AS - BUILT CONFIGURATION DATA LIST			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) SEE BLOCK 16		5. CONTRACT REFERENCE SOW C.13.2.1			6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY SEE 16	12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION			
8. APP CODE	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES	
<p>16. REMARKS</p> <p>BLOCK 4: THIS CDRL IS A CERTIFIED LIST OF ALL SPECIFICATIONS/DRAWINGS USED TO FABRICATE EACH DELIVERED UNIT. IT IS A MEANS OF PROVIDING CONFIGURATION ACCOUNTING REQUIRED BY CONFIGURATION MANAGEMENT. CONTRACTOR'S FORMAT FOR THE LIST IS ACCEPTABLE. THE LIST SHALL CONTAIN AS A MINIMUM, THE FOLLOWING DATA:</p> <ol style="list-style-type: none"> <li>1. SYSTEM/EQUIPMENT EX/MARK AND MOD NUMBER AND NOMENCLATURE</li> <li>2. ITEM SERIAL NUMBER AND LOT NUMBER.</li> <li>3. ITEM SPECIFICATION AND/OR DRAWING NUMBER AND REVISION.</li> <li>4. APPROVED ENGINEERING CHANGE PROPOSALS, DEVIATIONS AND WAIVERS</li> <li>5. LOWER INDENTURED COMPONENTS AND/OR ASSEMBLIES SERIAL NUMBERS</li> <li>6. DATE OF SHIPMENT FROM THE FACTORY.</li> <li>7. CERTIFIED STATEMENT THAT THE ABOVE INFORMATION DESCRIBES THE SERIALIZED/LOT IDENTIFIED DELIVERED.</li> </ol> <p>BLOCKS 10,12 AND 13: A LOGBOOK SHALL BE DELIVERED WITH EACH DELIVERED UNIT OR LOT CONTROLLED ITEM.</p>					DRAFT		FINAL	
					REG		REPRO	
					NSWCDD G34		1 2	
					NSWCDD CODE 4025		1	
					15. TOTAL		1 3	
					PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03	

# CONTRACT DATA REQUIREMENTS LIST (1 Data Item)

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## A. CONTRACT LINE ITEM

B. EXH/ATCH NO.

C. CATEGORY:

TDP \_\_\_\_\_ TM \_\_\_\_\_ OTHER \_\_\_\_\_

D. SYSTEM/ITEM  
EX 437 MULTI-OPTION FUZE

E. CONTRACT/PR NO.

F. CONTRACTOR

1. DATA ITEM NO.  
A008

2. TITLE OF DATA ITEM  
AMMUNITION DATA CARD

3. SUBTITLE  
AMMUNITION AND EXPLOSIVE  
TECHNICAL DATA

4. AUTHORITY (Data Acquisition Document No.)  
DI-MISC-80043A

5. CONTRACT REFERENCE  
SOW C.22.2

6. REQUIRING OFFICE  
NSWCC CODE 402

7. DD250 REQ

9. DIST STATEMENT  
REQUIRED

10. FREQUENCY

12. DATE OF FIRST SUBMISSION

14. DISTRIBUTION

LT

AS REQD BLK 16

AS REQD BLK 16

8. APP CODE

D

11. AS OF DATE

13. DATE OF SUBMISSION

SEE 16

WHEN REVISED

a. ADDRESSEE

b. COPIES

## 16. REMARKS

### PRODUCTION OPTION REQUIREMENTS:

BLOCK 4. : DATA CARDS SHALL BE PREPARED IN ACCORDANCE WITH MIL-STD-1168B AS CHANGED BY ADL EXCEPTIONS AND ACCESSING THE WORLDWIDE AMMUNITION-DATA REPOSITORY PROGRAM (WARP) WARP IS LOCATED ON THE ARMY ELECTRONIC SUPPORT WEBSITE (AEPS) AT <http://aeaps.ria.army.mil>. AN ACCESS REQUEST FROM MUST BE COMPLETED BEFORE WARP CAN BE ACCESSED AND DATA CARDS INPUT. THE AEPS HELPDESK CAN BE REACHED AT 1-888-564-4357 AND QUESTION SPECIFIC TO WARP SHOULD BE ADDRESSED TO OPERATIONS SUPPORT COMMAND (AMSOS-PBQ) PHONE 309-782-6448 309-782-7360.

\* DATA CARDS SENT TO NSWC CRANE AND THE ONES SENT WITH THE SHIPMENTS SHALL BE HARDCOPY PRINTOUTS GENERATED FROM WARPS PROGRAM AND SHALL BE SIGNED AND DATED BY THE GOVERNMENT INSPECTOR. NSWC CRANE SUBMISSION SHALL ALSO INCLUDE HARDCOPY PRINTOUT OF SAMPLE DATA CARD (SEE MIL-STD-1168 PARA 4.3.1.4).  
\*\* WHEN BALLISTIC TESTS ARE REQUIRED TWO (2) COPIES SHALL BE FORWARDED TO THE PROVING GROUND WITH SHIPMENT AND TO THE PROVING GROUND BY MAIL.

\*\*\* DATA CARDS SUBMITTED TO NSCW CRANE SHALL BE SUBMITTED AT THE COMPLETION OF EACH LOT.

EXCEPTIONS TO MIL-STD-1168: LOT INTERFIX NUMBERS SHALL ALWAYS START WITH 001.

DRAFT

FINAL

NSWCDD  
G34

REG  
1

REPRO  
2

NSWCDD \*  
CODE 402  
LOT PARTIAL LOT  
SHIPMENT

2

1

QAR

1

15. TOTAL

4

3

G. PREPARED BY

H. DATE

I. APPROVED BY

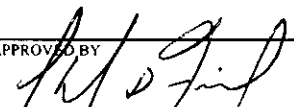
J. DATE

G.J. BRYANT CM/DM

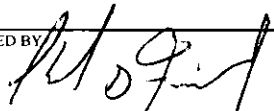
1/9/03

*[Signature]*

1/9/03

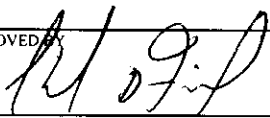
<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)					Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.							
A. CONTRACT LINE ITEM				B. EXH/ATCH NO.	C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR		
1. DATA ITEM NO. A009		2. TITLE OF DATA ITEM TEST AND INSECTION PLAN			3. SUBTITLE		
4. AUTHORITY(Data Acquisition Document No.) DI-NDTI-80566			5. CONTRACT REFERENCE SOW C.4.3; C.4.4; C.4.12; C.413.3		6. REQUIRING OFFICE NSWCDD G34		
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY SEE 16	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION		
8. APP CODE A	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE BLK 16		a. ADDRESSEE	b. COPIES	
16. REMARKS BLOCK 8: APPROVAL IS FOR TECHNICAL CONTENT AND COMPLETION.  BLOCK 10, 11, 12, 13 - SUBMIT PRIOR TO INITIATION OF PROOF OF DESIGN, LOT A AND LOT B TESTING. THE CONTRACTOR SHALL PROVIDE INITIAL TEST CRITERIA PLANNED TO PERFORM THE FUNCTION TESTING OF THE FUZE DURING ENGINEERING DEVELOPMENT, QUALIFICATION AND ACCEPTANCE TESTING. THE TEST CRITERIA SHALL INCLUDE THE PLANNED ACCEPTANCE LEVELS OF THE TEST EQUIPMENT INCLUDING THE MAXIMUM AND MINIMUM PARAMETERS, AND THRESHOLD LEVELS. ANY CHANGES TO THE CRITERIA AFTER INITIAL SUBMITTAL AND APPROVAL BY THE GOVERNMENT SHALL BE DOCUMENTED AND RESUBMITTED FOR ADDITIONAL APPROVAL. SUBMIT UPDATES AS REQUIRED.  ALSO SUBMIT ELECTRONICALLY					DRAFT	FINAL	
						REG	REPRO
				NSWCDD G34		1	2
				NSWCDD Code 4025			1
				15. TOTAL			1
1. DATA ITEM NO. A010		2. TITLE OF DATA ITEM TEST/INSPECTION REPORTS			3. SUBTITLE		
4. AUTHORITY(Data Acquisition Document No.) DI-NDTI-80809B			5. CONTRACT REFERENCE SEE SOW SECTION C.4.5		6. REQUIRING OFFICE NSWCDD G34		
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQD	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION		
8. APP CODE	D	11. AS OF DATE SEE BLK 16	13. DATE OF SUBMISSION AS REQD		a. ADDRESSEE	b. COPIES	
16. REMARKS BLOCK 4: THE CONTRACTOR SHALL PROVIDE TEST DATA SUFFICIENT TO DETERMINE WHETHER THE FUZE MEETS THE TECHNICAL SPECIFICATION. OTHER RELEVANT DATA TO THE ACCEPTANCE OF THE FUZE SHALL ALSO BE MADE AVAILABLE. FUNCTIONAL TEST DATA SHALL BE PROVIDED FOR EACH FUZE DELIVERED.  BLOCK 11, 12 AND 13: THE CONTRACTOR SHALL PROVIDE TEST DATA VIA ON-LINE ACCESS TO THE CONTRACTORS INFORMATION MANAGEMENT SYSTEM OR ELECTRONIC MAIL NLT 20 DAYS AFTER COMPLETION OF TESTS. THESE TEST DATA SHALL BE AVAILABLE TO THE NAVY AT IPT REVIEWS AND AT TIME OF HARDWARE DELIVERY.  CONTRACTOR FORMAT IS ACCEPTABLE.					DRAFT	FINAL	
						REG	REPRO
				NSWCDD G34		1	2
				NSWCDD Code 4025			1
				15. TOTAL			1
G. PREPARED BY G.J. BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY 		J. DATE 1/9/03		



CONTRACT DATA REQUIREMENTS LIST (1 DATA ITEM)						Form Approved OMB No. 0704-0188				
<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>										
A. CONTRACT LINE ITEM						B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE				E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A012		2. TITLE OF DATA ITEM QUALITY CONFORMANCE INSPECTION AND TEST PROCEDURES				3. SUBTITLE				
4. AUTHORITY (Data Acquisition Document No.) DI-RELI-80322				5. CONTRACT REFERENCE SEE SOW SECTION C.22.3		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ LT		9. DIST STATEMENT REQUIRED  D		10. FREQUENCY ONE/R		12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION		
8. APP CODE A				11. AS OF DATE SEE BLK 16		13. DATE OF SUBMISSION R/ASR				
16. REMARKS  BLOCK 9: DISTRIBUTION LIMITED TO DOD AND DOD CONTRACTORS (CONTAINS SENSITIVE TECHNOLOGY) 5 JUL 88. OTHER REQUESTS SHALL BE REFERRED TO NSWCDD DAHLGREN, VA. ATTN: CODE XDS10.  BLOCK 11, 12: SUBMIT 90 DAYS PRIOR TO FIRST ARTICLE. THE GOVERNMENT WILL RESPOND WITHIN 30 DAYS OF RECEIPT OF THE ORIGINAL AND ANY REVISIONS REQUIRED.								DRAFT	FINAL	
						NSWCDD G34		1	1	2
						NSWCDD CODE 4025		1		1
						DCMC		1		1
15. TOTAL		3	1	4						
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03		I. APPROVED BY 			J. DATE 1/9/03			

CONTRACT DATA REQUIREMENTS LIST ( 1 Data Item)						Form Approved OMB No. 0704-0188			
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA. 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188). Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM				B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____			
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A013		2. TITLE OF DATA ITEM CONTRACTOR'S PROGRESS, STATUS AND MANAGEMENT REPORT			3. SUBTITLE				
4. AUTHORITY(Data Acquisition Document No.) DI-MGMT-80227			5. CONTRACT REFERENCE SOW C.13; C.16.1; C.22.10		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ LT		9. DIST STATEMENT REQUIRED  D		10. FREQUENCY SEE BLK 16		12. DATE OF FIRST SUBMISSION SEE BLK 16			
8. APP CODE N/A				11. AS OF DATE		13. DATE OF SUBMISSION SEE BLK 16			
16. REMARKS  BLOCK 9: DISTRIBUTION LIMITED TO DOD AND DOD CONTRACTORS (CONTAINS SENSITIVE TECHNOLOGY) 5 JUL 88. OTHER REQUESTS SHALL BE REFERRED TO NSWCDD DAHLGREN, VA. ATTN: CODE XDS10. BLOCK 10, 12, AND 13: FIRST REPORT SUBMISSION DUE 30 DAYS AFTER CONTRACT AWARD. REPORT SHALL BE SUBMITTED MONTHLY. CONTRACTOR'S FORMAT IS ACCEPTABLE. ELECTRONIC SUBMISSION SHALL BE IN MICROSOFT WORD.  CONTRACTOR SHALL SUBMIT WITH EACH MONTHLY SUBMITTAL ANY CONFIGURATION MANAGEMENT DOCUMENTS WHERE DISPOSITIONS WERE MADE BY IT'S CONFIGURATION CONTROL BOARD.          CONTRACTOR SHALL SUBMIT WITH EACH MONTHLY SUBMITTAL ANY FAILURE AND COORECTIVE ACTION REPORTS.				14. DISTRIBUTION					
						a. ADDRESSEE		b. COPIES	
						DRAFT		FINAL	
						REG		REPRO	
				NSWCDD G34				1	
				NSWCDD CODE 4025				1	
PCO, NSWCDD CODE XDS10 (VAUGHAN)				1					
15. TOTAL						3			
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03		I. APPROVED BY <i>[Signature]</i>		J. DATE 1/9/03			

<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)						Form Approved OMB No. 0704-0188		
<p>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA, 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</p>								
<b>A. CONTRACT LINE ITEM</b>					<b>B. EXH/ATCH NO.</b>	<b>C. CATEGORY:</b> TDP ____ TM ____ OTHER ____		
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A014		2. TITLE OF DATA ITEM CRITICAL SAFETY ITEM, CHARACTERISTIC & CRITICAL DEFECT REPORT			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-SAFT-80970A			5. CONTRACT REFERENCE SOW C.8.2; C.22.4.2.3.; C.22.4.2.5; C.22.4.2.6; C.22.4.2.7		6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQD	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION			
8. APP CODE A	D	11. AS OF DATE SEE BLK 16	13. DATE OF SUBMISSION AS REQD		a. ADDRESSEE		b. COPIES	
<b>16. REMARKS</b>  BLK 10, 12 & 13: THE CONTRACTOR SHALL NOTIFY THE PROCURING CONTRACTING OFFICE AND ADMINISTRATIVE CONTRACTING OFFICER OF THE OCCURANCE OF THE DEFECT WITHIN ONE WORK DAY. IF APPLICABLE, THE CONTRACTOR SHALL DETERMINE WHICH OPERATIONS TO STOP, DOCUMENT THE RATIONALE FOR THIS DETERMINATION, AND PROVIDE PRELIMINARY FINDINGS PERTINENT TO THE DEFECT WITHIN TWO WORKING DAYS. THE REQUEST TO RESTART PRODUCTION OPERATIONS. ALONG WITH SUPPORTING DOCUMENTATION SHALL BE SUBMITTED WITHIN SEVEN WORKING DAYS TO THE PROCURING CONTRACTING OFFICER  BLOCK 14: ACO SHALL DETERMINE AFTER CONTRACT AWARD. CONTRACTORS FORMAT IS ACCEPTABLE.						DRAFT	FINAL	
					NSWCDD G34	1	REG	REPRO
					NSWCDD CODE 4025	1		1
					ACO	1		1
					15. TOTAL	3		3
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY <i>[Signature]</i>		J. DATE 1/9/03			

<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 DATA ITEMS)						Form Approved OMB No. 0704-0188						
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A. CONTRACT LINE ITEM					B. EXH/ATCH NO.	C. CATEGORY: TDP _____ TM _____ OTHER _____						
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR							
1. DATA ITEM NO. A015		2. TITLE OF DATA ITEM ACCIDENT/INCIDENT REPORT			3. SUBTITLE							
4. AUTHORITY (Data Acquisition Document No.) DI-SAFT-81563			5. CONTRACT REFERENCE SOW C.8; C.22.11		6. REQUIRING OFFICE NSWCDD G34							
7. DD250 REQ N/A	9. DIST STATEMENT REQUIRED		10. FREQUENCY AS REQD	12. DATE OF FIRST SUBMISSION AS REQD		14. DISTRIBUTION						
8. APP CODE N/A	D		11. AS OF DATE	13. DATE OF SUBMISSION		a. ADDRESSEE	b. COPIES					
16. REMARKS  REPORTS TO BE SUBMITTED IN MICROSOFT WORD. CONTRACTORS FORMAT IS ACCEPTABLE.						DRAFT      FINAL						
						NSWCDD G34			REG	REPRO		1
						NSWCDD CODE 4025						1
						PCO NSWCDD CODE XDS10						1
						15. TOTAL						
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY 			J. DATE 1/9/03						

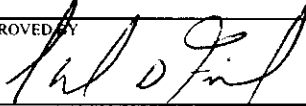


A016

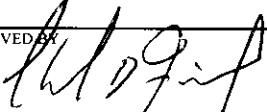
- 6.a Reproductions shall include and hard copies only.
- 6.b Digital data shall be prepared IAW vector graphics IGES, class II engineering drawings. Document format shall be standard industry practices. Files shall be submitted in DFX format.
- 6.c Dual dimensioning not required.
- 6.d The use of unique company standards is acceptable but will require sufficient disclosure to define product definition.
- 6.e Government callouts shall be where items are not covered by commercially recognized or industry recognized standards and specifications.
- 6.f Undimensioned drawings and printed wiring master pattern drawings shall be provided on dimensionally stable material or appropriate digital data suitable for generating duplicate printed wiring master patterns.
- 6.g A disclosure statement "Disclosure Statement D" shall be on each drawing.
- 6.h Source Control drawings need Navy concurrence prior to acceptance. Contractor should provide advance notification and information relative the use of Source Control Drawings.

TDP OPTION SELECTION WORKSHEET							
SPECIAL INSPECTION EQUIPMENT DRAWINGS AND ASSOCIATED LISTS							
A. CONTRACT NO.	B. EXHIBIT/ATTACHMENT Attachment 1	C. CLIN			CDRL DATA ITEM NO. A016		
<b>1. DELEVERABLE PRODUCT (x and complete as applicable)</b>							
X	a. ORIGINALS (Drawing masters) (Identify specification, type grade and class, etc) Standard Commercial type and class						
X	b. REPRODUCTIONS (Identify specification, type grade and class, etc) Standard Commercial type and class						
X	c. DIGITAL DATA (Identify specification, exchange media, etc) See 6.b						
<b>2. CAGE CODE AND DOCUMENT NUMBERS (x one)</b>							
	a. CONTRACTOR						
X	b. GOVERNMENT (complete (1) and (2) or (3))						
(1) Use Cage Code 53711		(2) Use document numbers TO BE SUPPLIED			(3) To be assigned by: NSWCDD, DAHLGREN G34		
<b>3. DRAWINGS FORMTS AND DRAWING FORMS. (x one and complete as applicable)</b>							
	a. CONTRACTOR FORMATS. Forms to be supplied by the contractor						
X	b. GOVERNMENT FORMATS ( Forms to be supplied by the contractor Samples to be supplied by NSWCDD						
	c. GOVERNMENT FORMATS. Forms to be supplied as government furnished material						
<b>4. TYPES AND QUANTITY OF DRAWING SELECTION (x one)</b>							
	a. CONTRACTOR SELECTS			X	b. Government selects (specify in item 9)		
<b>5. ASSOCIATED LISTS (x and complete as applicable)</b>							
	a. PARTS LISTS (x one)	X	(1) Integral		(2) Separate		(3) Contractors option
	b. DATA LISTS (x one)		(1) none		(2) Required (Specify levels of assy)		
	c. INDEX LISTS (x one)		(1) none		(2) Required (Specify levels of assy)		
<b>6. OTHER TAILORING (ATTACH ADDITIONAL SHEETS AS NECESSARY)</b> See sheet 2							

DD Form 2554-5

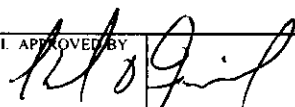
<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 DATA ITEM)						Form Approved OMB No. 0704-0188			
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA, 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM					B. EXH/ATCH NO.		C. CATEGORY: TDP _____ FM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A016		2. TITLE OF DATA ITEM PRODUCT DRAWINGS AND ASSOCIATED LISTS				3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-SESS-81000B			5. CONTRACT REFERENCE SOW C.12		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED		10. FREQUENCY AS REQD	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION			
8. APP CODE A	D		11. AS OF DATE SEE BLK 16	13. DATE OF SUBMISSION AS REQD		a. ADDRESSEE	b. COPIES		
16. REMARKS BLOCK 4:  CONTRACTOR SHALL PREPARE AND SUBMIT PRODUCT DRAWINGS FOR PARTS UNIQUE TO THE MOFN.  PROGRAM EXISTING DRAWINGS FOR THE M782 MOFA FUZE THAT THE CONTRACTOR INTENDS TO USE UNCHANGED SHALL NOT BE REGENERATED.  SEE ATTACHMENT						DRAFT	FINAL		
							NSWCDD G34	REG 1	REPRO 2
						NSWCDD CODE 4025		1	
						15. TOTAL			
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY 			J. DATE 1/9/03			

<b>CONTRACT DATA REQUIREMENTS LIST</b> <b>(1 DATA ITEM)</b>						Form Approved OMB No. 0704-0188			
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A. CONTRACT LINE ITEM					B. EXH/ATCH NO.		C. CATEGORY: TDP ____ TM ____ OTHER		
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A017		2. TITLE OF DATA ITEM DETAIL SPECIFICATION			3. SUBTITLE				
4. AUTHORITY(Data Acquisition Document No.) DI-SDMP-81493			5. CONTRACT REFERENCE SOW C.12		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED  D		10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION			
8. APP CODE A			11. AS OF DATE SEE BLK 16	13. DATE OF SUBMISSION SEE BLK 16		a. ADDRESSEE			
16. REMARKS EACH SUBMITTED (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  PREPARE A SPECIFICATION FOR THE EX437 MOD 0 MOFN AND EACH SUB-COMPONENT REQUIRING LOWER LEVEL FIRST ARTICLE AND LOT ACCEPTANCE TESTING TO ACQUIRE THE CONFIDENCE LEVELS FOR FUZE QUALITY AND RELIABILITY.  BLOCKS 10, 11, 12, 13: SUBMIT INITIAL COPY 30 DAYS PRIOR TO IPT CDR. ALLOW 30 DAYS FOR NAVY COMMENTS THEN RESUBMIT IN 20 DAYS. SUBMIT REVISED COPIES 30 DAYS PRIOR TO SUBSEQUENT IPT REVIEWS NO LATER THAN CONDUCTING QUALIFICATION TESTS. SUBMIT FINAL COPY WITH DELIVERY OF FUZES. ALLOW 60 DAYS FOR NAVY COMMENTS. SUBMIT FINAL MASTER 30 DAYS AFTER RECEIPT OF NAVY COMMENTS.  BLOCK 14B: SUBMIT ELECTRONICALLY (ON ELECTRONIC MEDIA. PROVIDE IN MICROSOFT WORD FORMAT)						b. COPIES (BLK 16)			
						DRAFT		FINAL	
						NSWCDD G34		REG 1	
						NSWCDD CODE 4025		REPRO 2	
						15. TOTAL		1      3	
G. PREPARED BY  GJ BRYANT CM/DM		H. DATE  1/9/03		I. APPROVED BY  <i>[Signature]</i>			J. DATE  1/9/03		

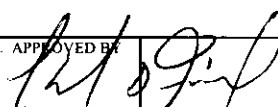
<b>CONTRACT DATA REQUIREMENTS LIST</b> <b>(1 DATA ITEM)</b>						Form Approved OMB No. 0704-0188		
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A. CONTRACT LINE ITEM					B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____	
D. SYSTEM/ITEM EX 437 MOD 0 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A018		2. TITLE OF DATA ITEM SOFTWARE TEST DESCRIPTION (STD)			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-IPSC-81439A			5. CONTRACT REFERENCE SOW C.11.3.1		6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQD	12. DATE OF FIRST SUBMISSION SEE BLK 16		14. DISTRIBUTION			
8. APP CODE A	D	11. AS OF DATE SEE BLK 16	13. DATE OF SUBMISSION AS REQD		a. ADDRESSEE		b. COPIES	
18. REMARKS  BLK 8: APPROVAL IS FOR COMPLETENESS AND CONTENT.  BLOCKS 10, 11, 12, 13: SUBMIT INITIAL COPY 20 DAYS PRIOR TO VERIFICATION TESTING (NAVY APPROVAL NOT REQUIRED). RE-SUBMIT PRE-QUAL COPY 20 DAYS PRIOR TO QUALIFICATION TESTING. ALLOW 20 DAYS FOR NAVY COMMENTS. RESUBMIT REVISED IN 20 DAYS. SUBMIT ANY REVISED COPIES 30 DAYS PRIOR TO SUBSEQUENT SOFTWARE IPT REVIEWS NO LATER THAN CONDUCTING ANY RE-QUALIFICATION TESTS. CONTRACTOR FORMAT ACCEPTABLE  EACH SUBMITTED (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."						DRAFT	FINAL	
					NSWCDD G34		REG 1	REPRO 2
					NSWCDD CODE 4025			1
15. TOTAL							1	3
G. PREPARED BY GJ BRYANT CM/DM		H. DATE 1/9/03		I. APPROVED BY 			J. DATE 1/9/03	

<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)						Form Approved OMB No. 0704-0188		
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A. CONTRACT LINE ITEM				B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A019		2. TITLE OF DATA ITEM SOFTWARE DESIGN DESCRIPTION (SDD) / INTERFACE DESIGN DESCRIPTION (IDD)			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-IPSC-81435A, DI-IPSC-81436A			5. CONTRACT REFERENCE SOW C.11.2.2		6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION			
8. APP CODE A	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES	
16. REMARKS EACH SUBMITTED (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLOCK 8: PROVIDE SDD FOR EACH CSCI. APPROVAL IS FOR TECHNICAL COMPLETENESS AND CONTENT. BLOCKS 10, 12 AND 13: INITIAL SUBMITTALS DUE 30 DAYS PRIOR TO SOFTWARE JOINT IPT REVIEW AND FUZE VERIFICATION TEST AND FORMAL QUALIFICATION TESTING (FQT). FINAL SUBMITTAL SHALL BE AFTER NAVY COMMENTS ARE CONSIDERED AND FUZE QUALIFICATION TESTING HAS BEEN COMPLETED.  SUBMIT ON MAGNETIC MEDIA.					DRAFT		FINAL	
							REG	REPRO
					NSWCDD G34		1	2
					NSWCDD CODE 4025			1
					15. TOTAL			1
1. DATA ITEM NO. A020		2. TITLE OF DATA ITEM SOFTWARE PRODUCT SPECIFICATION			3. SUBTITLE			
4. AUTHORITY (Data Acquisition Document No.) DI-DCCR-80029A			5. CONTRACT REFERENCE SOW C.11.2.2		6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION			
8. APP CODE A	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES	
16. REMARKS EACH SUBMITTED (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLOCK 8: PROVIDE SPS FOR EACH CSCI. APPROVAL IS FOR TECHNICAL CONTENT.  BLOCKS 10, 11, 12 AND 13: INITIAL SUBMITTALS DUE 30 DAYS PRIOR TO SOFTWARE FORMAL QUALIFICATION TESTING (FQT) FINAL SUBMITTAL SHALL BE AFTER NAVY COMMENTS ARE CONSIDERED AND FUZE QUALIFICATION TESTING HAS BEEN COMPLETED.  SUBMIT ON ELECTRONICALLY.					DRAFT		FINAL	
							REG	REPRO
					NSWCDD G34		1	2
					NSWCDD CODE 4025			1
					15. TOTAL			1
G. PREPARED BY G.J. Bryant CM/DM		H. DATE 1/9/03	I. APPROVED BY <i>[Signature]</i>		J. DATE 1/9/03			

<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)						Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA. 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188). Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.								
A. CONTRACT LINE ITEM					B.EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____	
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A021		2. TITLE OF DATA ITEM SOFTWARE TEST REPORT (STR)			3. SUBTITLE			
4. AUTHORITY(Data Acquisition Document No.) DI-IPSC-81440A			5. CONTRACT REFERENCE SEE SOW C.11.3..3		6. REQUIRING OFFICE NSWCDD G34			
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED  D	10. FREQUENCY SEE 16	12. DATE OF FIRST SUBMISSION SEE 16	14. DISTRIBUTION				
8. APP CODE A		11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16	a. ADDRESSEE		b. COPIES		
16. REMARKS BLK 8: ALLOW 20 DAYS FOR NAVY REVIEW AND COMMENTS. RESUBMIT WITH REVISIONS 15 DAYS AFTER RECEIPT OF NAVY COMMENTS.  BLKS:10, 11, 12, 13 : SUBMIT 30 DAYS AT THE CONCLUSION OF EACH QUALIFICATION (FQT) AND ANY RE-QUALIFICATION NEEDED.  EACH SUBMITTED (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  SUBMIT ELECTRONICALLY						DRAFT	FINAL	
							REG	REPRO
					NSWCDD G34		1	2
					NSWCDD CODE 4025			1
					15. TOTAL			1
G. PREPARED BY G.J. BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY <i>[Signature]</i>		J. DATE 1/9/03			

<b>CONTRACT DATA REQUIREMENTS LIST</b> (2 DATA ITEMS)						Form Approved OMB No. 0704-0188			
Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA. 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188). Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.									
A. CONTRACT LINE ITEM					B. EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR				
1. DATA ITEM NO. A022		2. TITLE OF DATA ITEM SCIENTIFIC AND TECHNICAL REPORTS			3. SUBTITLE				
4. AUTHORITY(Data Acquisition Document No.) DI-MISC-80711A			5. CONTRACT REFERENCE SOW C.5.2; C.4.13.1; C.8.3; C.8.4; C.10.12; C.16.3.		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQ	12. DATE OF FIRST SUBMISSION AS REQ		14. DISTRIBUTION				
8. APP CODE	D	11. AS OF DATE AS REQ	13. DATE OF SUBMISSION AS REQ		a. ADDRESSEE		b. COPIES		
16. REMARKS BLK 9: MARK WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLK: 10, 11, 12, 13 SUBMIT REPORTS FOR NAVY REVIEW AND IN COORDINATION AND TIMLINESS WITH IPT REVIEWS AND/OR TESTING.							DRAFT	FINAL	
								REG	REPRO
					NSWCDD G34			1	2
					NSWCDD CODE 4025				1
					15. TOTAL			1	3
1. DATA ITEM NO. AO23		2. TITLE OF DATA ITEM PRESENTATION MATERIAL			3. SUBTITLE				
4. AUTHORITY(Data Acquisition Document No.) DI-ADMN-81373			5. CONTRACT REFERENCE SOW C.3.4; C.15.1; C.4.4; C.4.9; C.4.13.2; C.8.11.3		6. REQUIRING OFFICE NSWCDD G34				
7. DD250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION SEE 16		14. DISTRIBUTION				
8. APP CODE	D	11. AS OF DATE SEE 16	13. DATE OF SUBMISSION SEE 16		a. ADDRESSEE		b. COPIES		
16. REMARKS SUBMITTED MATERIAL (FIRST PAGE) SHALL BE MARKED WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLOCKS 10, 12 AND 13: PRESENTATION MATERIAL SHALL BE PROVIDED AT TIME OF REVIEW.							DRAFT	FINAL	
					NSWCDD G34			REG	REPRO
					NSWCDD CODE 4025				1
					15. TOTAL			1	7
G. PREPARED BY G.J. BRYANT CM/DM		H. DATE 1/9/03	I. APPROVED BY 		J. DATE 1/9/03				



<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 DATA ITEM)						Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>							
A. CONTRACT LINE ITEM				B. EXH/ATCH NO.	C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE		E. CONTRACT/PR NO.		F. CONTRACTOR			
1. DATA ITEM NO. A024		2. TITLE OF DATA ITEM CONFERENCE AGENDA			3. SUBTITLE		
4. AUTHORITY(Data Acquisition Document No.) DI-ADMIN-81249A		5. CONTRACT REFERENCE SOW C.3.4; C.15.1			6. REQUIRING OFFICE NSWCDD G34		
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED  D	10. FREQUENCY AS REQ	12. DATE OF FIRST SUBMISSION AS REQ	14. DISTRIBUTION			
8. APP CODE		11. AS OF DATE AS REQ	13. DATE OF SUBMISSION AS REQ	a. ADDRESSEE		b. COPIES	
16. REMARKS BLK 9: MARK WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLK:10,11,12,13 SUBMIT AGENDAS FOR NAVY REVIEW IN COORDINATION AND TIMLINESS WITH ALL REVIEWS.					DRAFT	FINAL	
						REG	REPRO
				NSWCDD G34		1	2
				NSWCDD CODE 4025			1
15. TOTAL						1	3
G. PREPARED BY GARY BRYANT		H. DATE 1/9/03	I. APPROVED BY 		J. DATE 1/9/03		

<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 DATA ITEM)						Form Approved OMB No. 0704-0188						
<small>Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed for completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget Paperwork Reduction Project (0704-0188), Washington D.C. 20503. Please DO NOT RETURN your form to either of these addresses. Send complete form to the Government issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>												
A. CONTRACT LINE ITEM					B.EXH/ATCH NO.		C. CATEGORY: TDP _____ TM _____ OTHER _____					
D. SYSTEM/ITEM EX 437 MULTI-OPTION FUZE			E. CONTRACT/PR NO.		F. CONTRACTOR							
1. DATA ITEM NO. A025		2. TITLE OF DATA ITEM CONFERENCE MINUTES			3. SUBTITLE							
4. AUTHORITY(Data Acquisition Document No.) DI-ADMIN-81250A		5. CONTRACT REFERENCE SOW C.3.4; C.4.1; C.15.1; C.16.4; C.17.2			6. REQUIRING OFFICE NSWCDD G34							
7. DD250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQ	12. DATE OF FIRST SUBMISSION AS REQ		14. DISTRIBUTION							
8. APP CODE	D	11. AS OF DATE AS REQ	13. DATE OF SUBMISSION AS REQ		a. ADDRESSEE		b. COPIES					
16. REMARKS BLK 9: MARK WITH "STATEMENT D, DOD AND CONTRACTORS, PM4, NSWC CRANE, IN. WARNING EXPORT CONTROLLED."  BLK: 10, 11, 12, 13 SUBMIT AGENDAS FOR NAVY REVIEW IN COORDINATION AND TIMLINESS WITH ALL REVIEWS.							DRAFT		FINAL			
									REG		REPRO	
					NSWCDD G34				1		2	
					NSWCDD CODE 4025						1	
15. TOTAL						1		3				
G. PREPARED BY GARY BRYANT		H. DATE 1/9/03		I. APPROVED BY <i>[Signature]</i>		J. DATE 1/9/03						

<b>DEPARTMENT OF DEFENSE</b> <span style="float: right;">#002-03</span> <b>CONTRACT SECURITY CLASSIFICATION SPECIFICATION</b> <i>(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)</i>				<b>1. CLEARANCE AND SAFEGUARDING</b> a. FACILITY CLEARANCE REQUIRED <div style="text-align: center; border: 1px solid black; padding: 2px;">SECRET</div> b. LEVEL OF SAFEGUARDING REQUIRED <div style="text-align: center; border: 1px solid black; padding: 2px;">SECRET</div>	
<b>2. THIS SPECIFICATION IS FOR:</b> <i>(x and complete as applicable)</i>			<b>3. THIS SPECIFICATION IS:</b> <i>(x and complete as applicable)</i>		
a. PRIME CONTRACT NUMBER		a. ORIGINAL <i>(Complete date in all cases)</i>		Date (YYMMDD)	
b. SUBCONTRACT NUMBER		b. REVISED <i>(Supersedes all previous specs)</i>		Revision No.	Date (YYMMDD)
c. SOLICITATION OR OTHER NUMBER		Due Date (YYMMDD)		c. FINAL <i>(Complete item 5 in all cases)</i>	
X N00178-03-R-3065				Date (YYMMDD)	
<b>4. IS THIS A FOLLOW-ON CONTRACT?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: Classified material received or generated under _____ <i>(Preceding Contract Number)</i> is transferred to this follow-on contract.					
<b>5. IS THIS A FINAL DD FORM 254?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: In response to the contractor's request dated _____, retention of the identified classified material is authorized for the period of _____.					
<b>6. CONTRACTOR</b> <i>(Include Commercial and Government Entity (CAGE) Code)</i>					
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
<b>7. SUBCONTRACTOR</b>					
a. NAME, ADDRESS AND ZIP CODE		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
<b>8. ACTUAL PERFORMANCE</b>					
a. LOCATION		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>	
<b>9. GENERAL IDENTIFICATION OF THIS PROCUREMENT</b>  PRODUCT IMPROVEMENT PROGRAM TO CONVERT US ARMY'S M782 FUZE INTO NAVY'S EX 437 MOD 0 FUZE					
<b>10. THIS CONTRACT WILL REQUIRE ACCESS TO:</b>		YES	NO	<b>11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:</b>	
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION			X	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	X
b. RESTRICTED DATA			X	b. RECEIVE CLASSIFIED DOCUMENTS ONLY	X
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION			X	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	X
d. FORMERLY RESTRICTED DATA			X	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	X
e. INTELLIGENCE INFORMATION:				e. PERFORM SERVICES ONLY	X
(1) Sensitive Compartmented Information (SCI)			X	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES	X
(2) Non-SCI			X	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	X
f. SPECIAL ACCESS INFORMATION			X	h. REQUIRE A COMSEC ACCOUNT	X
g. NATO INFORMATION			X	i. HAVE TEMPEST REQUIREMENTS	X
h. FOREIGN GOVERNMENT INFORMATION			X	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	X
i. LIMITED DISSEMINATION INFORMATION			X	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	X
j. FOR OFFICIAL USE ONLY INFORMATION	X			l. OTHER <i>(Specify)</i>	
k. OTHER <i>(Specify)</i>					

12. **PUBLIC RELEASE.** Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release.

☐ Direct ☒ Through (Specify):

COMMANDER, DAHLGREN DIVISION  
NAVAL SURFACE WARFARE CENTER, CODES CD206  
DAHLGREN, VA 22448-5100

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)\* for review.  
\*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

13. **SECURITY GUIDANCE.** The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

SECURITY CLASSIFICATION GUIDE - FUZE, MULTI-OPTION, ARTILLERY, M782

SEE ATTACHED SHEET

CHAD FINCH, Code G34, (540)653-5488  
Contracting Officer's Representative

Estimated Expiration Date: 050930

14. **ADDITIONAL SECURITY REQUIREMENTS.** Requirements, in addition to ISM requirements are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)

☐ Yes ☒ No

15. **INSPECTIONS.** Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.)

☐ Yes ☒ No

16. **CERTIFICATION AND SIGNATURE.** Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL

b. TITLE

c. TELEPHONE (Include Area Code)

GLORIA E. ELMORE

Contracting Officer's Security Representative

(540)653-8723

d. ADDRESS (Include Zip Code)

COMMANDER, DAHLGREN DIVISION  
NAVAL SURFACE WARFARE CENTER, CODE XDC94  
DAHLGREN, VA 22448-5100

e. SIGNATURE

*Gloria E. Elmore*

17. **REQUIRED DISTRIBUTION**

- |                                     |   |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | a. CONTRACTOR   |
| <input type="checkbox"/>            | b. SUBCONTRACTOR  |
| <input checked="" type="checkbox"/> | c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR          |
| <input type="checkbox"/>            | d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION |
| <input checked="" type="checkbox"/> | e. ADMINISTRATIVE CONTRACTING OFFICER                             |
| <input checked="" type="checkbox"/> | f. OTHERS AS NECESSARY  |

CONTINUATION SHEET - DD FORM 254

All reports containing scientific/technical information (both classified and unclassified) will be marked on both the cover and title page with the following distribution statement:

"Distribution authorized to U.S. GOVERNMENT AGENCIES ONLY; TEST AND EVALUATION"; (Date statement applied). Other requests for this document must be referred to Commander, Dahlgren Division, Naval Surface Warfare Center, Code G34, Dahlgren, VA 22448-5100.

All technical data provided to the contractor by the government will be protected from public disclosure in accordance with the markings contained thereon. All other information relating to the items to be delivered or services to be performed under this contract may not be disclosed by any means without prior approval of the authorized representative of the contracting officer. Dissemination or public disclosure includes, but is not limited to, permitting access to such information by foreign nationals or by any other person or entity; publication of technical or scientific papers; advertising; or any other proposed public release. The contractor shall provide adequate physical protection to such information as to preclude access by any person or entity not authorized such access by the government.

Due to the sensitivity of this program, no classified material received or generated under this contract will be transferred to any other contractor or agency without the approval of the Contracting Officer or Contracting Officer's Representative (COR).

Information on this contract is not releasable to personnel possessing reciprocal clearances without the written approval of NSWCCD.

All classified visit requests for other activities shall have "NEED-TO-KNOW" certified by the individual identified in Item 13. Visit requests for subcontractors to other activities will have "NEED-TO-KNOW" certified by the prime contractor. All requests shall contain the information required by Chapter 6, NISPOM. The time limit on all certifications shall not exceed the contract expiration date.

All classified visit requests for the Dahlgren Division, Naval Surface Warfare Center should be forwarded to the Visitor Control Office no later than five (5) working days prior to intended visit.

Any material produced under the terms of this contract will be classified directly from the source document(s) from which it was obtained. It will be marked with the most restrictive downgrading/declassification statement contained in such documents.

(Provided by the Deputy Chief of Staff for Intelligence (DCSINT))

1. The "FOR OFFICIAL USE ONLY" marking is assigned to information at the time of its creation in a DOD User Agency. It is not authorized as a substitute for a security classification marking but it is used on official Government Information that may be withheld from the public under exemptions 2 through 9 of the Freedom of Information Act.

2. Other non-security markings such as "Limited Official Use" and "Official Use Only" are used by non-DOD user Agencies for the same type of information and should be safeguarded and handled in accordance with instructions received from such agencies.

3. Use of the above markings does not mean that the information cannot be released to the public, only that it must be reviewed by the Government prior to its release to determine whether a significant Government purpose is served by withholding the information portions of it.

**4. IDENTIFICATION MARKINGS:**

a. An unclassified document containing FOUO information will be marked "For Official Use Only" at the bottom of the front cover (if any), on the first page, on each page containing FOUO information, on the back page, and on the outside of the back cover (if any). No portion marking will be shown.

b. Within a classified document, an individual page that contains FOUO and classified information will be marked at the top and bottom with the highest security classification appearing on the page. If an individual portion contains FOUO information but no classified information, the portion will be marked "FOUO".

c. Any "FOR OFFICIAL USE ONLY" information released to a contractor by a DOD User Agency is required to be marked with the following statement prior to transfer.

**THIS DOCUMENT CONTAINS INFORMATION EXEMPT FROM MANDATORY DISCLOSURE UNDER THE FOIA. EXEMPTIONS \_\_\_\_\_ APPLY.**

d. Removal of the "FOR OFFICIAL USE ONLY" marking can only be accomplished by the originator or other competent authority. When "FOR OFFICIAL USE ONLY" status is terminated, all known holders will be notified to the extent possible.

**5. DISSEMINATION:** Contractors may disseminate "FOR OFFICIAL USE ONLY" information to their employees and subcontractors who have a need for the information in connection with a classified contract.

**6. STORAGE:** During working hours "FOR OFFICIAL USE ONLY" information shall be placed in an out-of-sight location if the work area is accessible to persons who do not have a need for the information. During non-working hours, the information shall be stored to preclude unauthorized access. Filing such material with other unclassified records in unlocked files or desks is adequate when internal building security is provided during non-working hours. When such internal security control is not exercised, locked buildings or rooms will provide adequate after hours protection or the material can be stored in locked receptacles such as file cabinets, desks or bookcases.

7. **TRANSMISSION:** "FOR OFFICIAL USE ONLY" information may be sent via first-class mail or parcel post. Bulky shipments may be sent fourth-class mail.

8. **DISPOSITION:** When no longer needed, FOUO information may be disposed of by tearing each copy into pieces to preclude reconstructing, and placing it in a trash container or as directed by the User Agency.

9. **UNAUTHORIZED DISCLOSURE:** Unauthorized disclose of "FOR OFFICIAL USE ONLY" information does not constitute a security violation but the releasing agency should be informed of any unauthorized disclosure. The unauthorized disclosure of FOUO information protected by the Privacy Act may result in criminal sanctions.

**NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION  
Dahlgren, VA.**

**TECHNICAL AND PERFORMANCE REQUIREMENTS  
FOR THE  
EX 437 MOD 0 Multi-Option Fuze**

**Prepared by NSWCDD Code G34**

**APPROVAL:\_\_\_\_\_ .      DATE:\_\_\_\_\_ .**

**ATTACHMENT (F)**



REVISION	ECP/NOR	APPROVAL/DATE

**TECHNICAL AND PERFORMANCE REQUIREMENTS  
FOR THE  
EX 437 MOD 0 Multi-Option Fuze**

**Scope.** The requirements specified herein include design and environmental requirements for the EX 437 MOD 0 Multi-Option Fuze for Navy (MOFN). The product improvement effort is based on changes to the M782 MOFA fuze. The performance requirements and limitations of the EX 437 MOD 0 shall be as specified for the M782 MOFA except as identified herein.

**1. General Requirements.** This document identifies the design, safety and reliability requirements to which the EX 437 MOD 0 will be tested and inspected.

**1.1 Product Improvement Phase.** - Utilizing as much of the M782 MOFA design as practical, the contractor shall perform product improvements to meet the performance and environmental requirements specified herein.

Prior to the preliminary design review (PDR) the contractor shall conduct S&A proof-of-design testing as detailed in Figure 1. The minimum tests are detailed in Figure 1. Actual testing requirements depend on the S&A design changes, and the contractor shall therefore review the testing in Figure 1 and recommend to the government any additional testing that may be required to support the S&A redesign.

After the PDR, the contractor shall fabricate 20 lot A fuzes to the documentation set proposed at PDR. These fuzes will be gun fired by the government as detailed in Figure 2.

After successful completion of this gun firing and after the critical design review (CDR), the contractor shall produce and deliver 400 EX 437 MOD 0 fuzes, Lot B, for qualification testing as detailed in Figure 3.

**1.2 Production Phase.** - The government has an option for the contractor to build 5000 fuzes to the approved product baseline after successfully completing the qualification assessment, PRR and final WSESRB approvals.

**2. Detail requirements.**

**2.1 Electronic Time (ET) Function.** The fuze shall provide an electronic time function that is inductively selectable. The ET performance differs from the M782 in the following areas:

- a. The fuze shall be capable of being set between 0.35 to 327.66 seconds, in increments of 0.01 seconds. The fuze shall not function before 0.35 seconds.
- b. The fuze shall function between plus or minus 0.05 seconds of the set time.
- c. To increase safety, the fuze shall delay charging of the firing capacitor until necessary, as determined by the IPT.

The fuze shall provide a point detonating back up function for instances where the electronic time function fails.

**2.2 Proximity Function.** The fuze shall provide a proximity function that is inductively selectable. As with the M782, the fuze shall initiate the projectile at a nominal 9-meter height of burst. The proximity performance differs from the M782 in the following areas:

- a. The fuze shall be capable of being set for proximity turn-on from 4.00 seconds to 326.00 seconds in increments of 2.0 seconds.
- b. Over land, 95% of all proximity functions shall occur between 6 and 14 meters. Over water, 95% of all proximity functions shall occur between 6 and 16 meters. No fuze shall function at a height of burst greater than 20 meters or less than 1 meter.
- c. To increase safety, the fuze shall delay charging of the firing capacitor until necessary, as determined by the IPT.

The fuze shall provide a point detonating back up function for instances where the proximity function fails.

**2.3. Point Detonating Function.** The fuze shall provide a point detonating function that is inductively selectable. As with the M782, the fuze shall function on target impact, when fired against a 3-inch thick plywood target or ground. The point detonating performance differs from the M782 as follows:

- a. To increase safety, the fuze shall receive time of flight information and delay charging of the firing capacitor until necessary, as determined by the IPT.

**2.4. Point Detonating Delay Function.** The fuze shall provide a point detonating delay function that is inductively selectable. As with the M782, the fuze shall be capable of penetrating an 8-inch plywood target and functioning between ½ foot and 35 feet behind the target face. The point detonating delay performance differs from the M782 as follows:

- a. To increase safety, the fuze shall receive time of flight information and delay charging of the firing capacitor until necessary, as determined by the IPT.

**2.5. Reliability.** The fuze shall maintain the reliability requirements of the M782 for each functional mode of operation. In addition, the fuze shall meet the following reliability requirements and shall maintain its reliability during its storage and service life requirements.

- a. The fuze shall have an inductive set reliability of 95% when inductively set in accordance with the requirements of 2.8 and Appendix A.
- b. Storage life. The fuze storage life shall be 20 years in ammunition containers.

- c. Service life. The fuze service life is at least 10 years. Service life includes, but is not limited to, fuze removal from ammunition container, installation on the projectile, and transport to storage depots and ship magazines. The combined storage life and service life is not required to exceed 20 years.

**2.6. Maintainability.** The fuze shall require no maintenance.

**2.7. Safety.** The fuze design shall conform to the safety requirements of MIL-STD-1316 and the following requirements:

- a. Arming distance/time. The fuze shall not arm (see 6.1.a) after gun firing earlier than 400 feet . The fuze shall arm after gun firing no further than 900 feet.
- b. Out-of-line safety. Out-of-line safety testing IAW MIL-STD-331B, Test D1.
- c. Lead azide. New components developed for use in this fuze shall comply with NAVSEA 8020.3A. Previously developed items using lead azide that are not hermetically sealed must be shown to present negligible safety risk due to aging.
- d. Hot gun barrel. The fuze shall be safe to gunfire, after being exposed to a hot gun environment in accordance with NSWC procedures.
- e. The energy stored to initiate the detonator shall be bled down below the Maximum No Fire energy level within 30 minutes after battery activation.
- f. There shall be no active battery prior to gun launch.
- g. The fuze shall default to a point detonating back up mode should there be any error in or no inductive setting, loss of power or memory, or other electronic or mechanical failure. The fuze shall also perform pre-flight and in-flight self-diagnostics, any anomalies shall cause the fuze to default to a point detonating back up mode.

**2.8. Interface.** The fuze shall properly interface with the system equipment identified below. The fuze shall not, require modification to the equipment (excluding minor software changes which shall not interfere with the system compatibility with the MK 419 fuze), require special handling procedures, require special military occupation specialties or require special training. The fuze shall properly interface and not create unsafe conditions or deleterious effects with the following:

- a. MK 86 all MODs and MK 160 MODs 4, 6, and 8. Gun Fire Control Systems (GFCS), including ballistic solutions.
- b. MK 34 Inductive Setter. The fuze shall be fully compatible with the MK 34 MOD 1 Inductive Setter as identified in appendix A and the following:
  - 1. The separation distance for inductive setting between fuze tip and setter coil windings shall be 1.0 inch maximum and 0.5 inch minimum.
  - 2. Message format. The fuze shall be inductively settable using the message characteristics defined in Table I of this document.
  - 3. The fuze shall leave the factory set to proximity mode with a turn on time to be determined after a gov't conducted electromagnetic vulnerability test.

4. The fuze shall check the parity bit (shown in Table I). If the parity check fails the fuze shall not set.
- c. MK 45 MOD 1, 2 (5"/54 barrel) or MOD 4 (5"/62 barrel) Gun Mounts The HiFrag and MK 64 Projectiles. Fuze output energy characteristics shall be sufficient to initiate these projectiles.
- d. Standard fuze wrench per NAPEC drawing 411.
- e. The fuze contour shall conform to dimensions Figure 1 of STANAG 2916, and the fuze shall weigh the same as the M782 (ref 1.94 +/- .05 lbs.)
- f. The inductive set capability of the fuze shall meet the requirements of STANAG 4369 and AOP 22.

FUNCTION MODE	START BIT	ROUND ID	TM ENABLE	MODE SELECT	DATA BITS	LAST BIT
	B0	B1-B5	B6	B7-B8	B9-B24	B25
POINT DETONATE DELAY (PD DELAY)	1	00110	Y	00	TTTT TTTT TTTT TTTP	0
POINT DETONATE (PD)	1	00110	Y	01	TTTT TTTT TTTT TTTP	0
ELECTRONIC TIME (ET)	1	00110	Y	10	TTTT TTTT TTTT TTTP	0
SURFACE PROXIMITY (PROX)	1	00110	Y	11	TTTT TTTT TTTT TTTP	0

**Table I. Fuze setting message format.**

Where:

B0-B25: Bit location in setting message;

P: Parity bit [set/clear to maintain even parity];

T: Fuze time to function (10 milliseconds/increment). Time data is sent without a decimal, then fuze divides by 100 to get the appropriate decimal place. The least significant bit (LSB) is the "T" next to the parity bit, "P".

Y: Fuze telemetry enable bit. 1 = enabled, 0 = disabled

**2.9. Gun launch environment.** The fuze must be safe and operable during cycling through the gun mount, ramming, gun launch and in-flight dynamics. The fuze must operate when fired from 5"/62 and 5"/54 guns with the MK 67 service charge and the EX 175 charge. The fuze must be safe when fired with a clearing charge or when fired at proof pressures (per NAVSEAINST 8300.4A). Section 5.2 provides the best available

description of the gun launch environment, therefore a fuze designed to survive these environments will probably survive gun launch. However, surviving gun launch, not a simulation of the listed environments, is the actual requirement.

**2.10. Proof-of-Design Testing.** The contractor shall complete S&A proof of design testing as detailed in Figure 1 prior to the preliminary design review (PDR). During the S&A redesign, the contractor shall review the testing in Figure 1 and recommend to the gov't any additional testing that may be required to support the S&A redesign.

**2.11. Lot A Test.** The contractor shall fabricate 20 fuzes to the documentation set proposed at PDR. These fuzes will be gun fired by the gov't as detailed in Figure 2.

**2.12. Qualification Testing, Lot B.** The fuze shall withstand environmental and induced conditions that may be encountered during its life cycle. The fuze shall survive storage temperatures between -65°F and +160°F, and operating temperatures between +20°F and +120°F. The life cycle environmental conditions have been characterized in Mil-Std-331 and other standards; therefore, the requirements for the fuze are to pass these standards as required herein.

- a. Temperature and humidity tested in accordance with MIL-STD-331, Test C1. The fuze shall be tested for 28 days. The fuze shall be tested in a fixture simulating the projectile nose. After environmental conditioning the fuze shall be safe for transportation, storage, handling and operable as determined by gun test and/or breakdown inspection as indicated in Figure 3.
- b. Salt fog tested in accordance with MIL-STD-331, Test C3.
- c. Extreme temperature tested in accordance with MIL-STD-331, Test C6, all three procedures.
- d. Thermal shock tested in accordance with MIL-STD-331, Test C7. The fuze shall be tested by itself. After environmental conditioning the fuze shall be safe for transportation, storage, handling and operable as determined by gun test and/or breakdown inspection as indicated in Figure 3.
- e. Leak detection tested in accordance with MIL-STD-331, Test C8, (or equivalent) leakage no greater than  $10^{-5}$  standard atmosphere cc/sec. The fuze is to be tested bare. After environmental conditioning the fuze shall be safe for transportation, storage, handling and operable as determined by gun/or test and breakdown inspection as indicated in Figure 3.
- f. Transportation vibration [bare fuze] tested in accordance with MIL-STD-331, Test B1. The fuze shall be installed on an inert blind loaded and plugged 5" round, loaded in a properly strapped pallet. After environmental conditioning the fuze shall be safe for transportation, storage, handling and operable as determined by gun test/or and breakdown inspection as indicated in Figure 3.
- g. Transportation vibration [packaged fuze] tested in accordance with MIL-STD-331, Test B2.
- h. Shipboard shock tested in accordance with MIL-S-901.
- i. Shipboard vibration tested in accordance with MIL-STD-2105.

- j. Jolt tested in accordance with MIL-STD-331, Test A1. The fuze shall be tested in all three axes. For the horizontal position, jolt fuzes with at least one fuze at the 3 o'clock roll orientation and one at the nine o'clock roll orientation, and one at the 12 o'clock roll orientation. Test shall be conducted at ambient temperature. After jolt, the fuze shall be safe for transportation, storage, handling and safe for use as determined by breakdown inspection.
- k. 1.5-meter drop tested in accordance with MIL-STD-331, Test A4.
- l. 12-meter drop tested in accordance with MIL-STD-331, Test A3. The fuze shall be installed on an inert blind loaded and plugged 5" round. The round shall be in the unpackaged condition. Test shall be conducted at ambient temperature. This test is destructive. After the test the fuze shall be safe for disposal as determined by x-ray.
- m. Fast Cook Off tested per MIL-STD-2105. The reaction type shall be no more severe than the M782.
- n. Slow Cook Off tested per MIL-STD-2105. The reaction type shall be no more severe than the M782.
- o. Ballistic tests as indicated.
- p. Electromagnetic Effects (E3). The fuze during its storage, shipping, handling and deployment (pre- and post-gunfire) configurations shall withstand all E3 environments without being rendered inoperable or unsafe. The E3 environment includes the following:
  - 1. Hazards of electromagnetic radiation to ordnance (HERO). The fuze shall meet the required shipboard radar and other sources of electromagnetic radiation IAW MIL-STD-464. Compliance shall be verified by system, subsystem, and equipment level tests and/or analysis.
  - 2. High altitude electromagnetic pulse (HEMP). The fuze shall withstand the simulated HEMP environment specified in MIL-STD-331, Test F2.
  - 3. Personnel Electrostatic discharge (PESD). The fuze shall withstand ESD environments in its storage, shipping and handling configuration. The fuze shall meet all the safety and reliability requirements IAW MIL-STD-331, Test F1. The test shall be performed on a bare fuze.
  - 4. Helicopter Electrostatic Discharge (HESD). The fuze shall withstand the ESD environments found during aircraft shipping configuration. The fuze shall meet the safety and reliability requirements IAW MIL-STD-331, Test F1. The test shall be performed on a fuze installed on a projectile.
  - 5. High Voltage Corona (HVC). The fuze shall withstand the ESD environments in its in-flight configuration. The fuze shall meet the safety and reliability requirements IAW MIL-STD-331, Test F1.
  - 6. Lightning. The fuze shall meet the detailed requirements for the preclusion of near strike lightning hazards given in MIL-STD-464.
  - 7. Shipboard electromagnetic radiation (EMR). The fuze shall withstand the pre- and post-gunfire EMR environment during storage, handling and flight without being rendered inoperable or unsafe. The EMR environment, as specified in MIL-STD-464, includes shipboard radar and

other sources of electromagnetic radiation as determined appropriate by NSWC Dahlgren personnel.

**2.12.1. Breakdown & Function (Detail Strip) Inspection.** Post environmental fuzes and control fuzes shall be disassembled in stages to obtain electronic function data, S&A data and hardware conformance data, as detailed by the specifications generated prior to CDR

**2.12.1.1. Procedures.** The test activity shall follow an approved standard operating procedure, which shall include at a minimum the following procedures:

- a. Label all inspection data for each fuze so that traceability is maintained through the entire test sequence, record all defects and non-conformances.
- b. Disassemble each fuze to the major subassembly or individual component level for this inspection. During disassembly extreme care shall be used so as not to introduce foreign materials or otherwise disturb the inspected item.
- c. Label and/or containerize all disassembled fuze parts and assemblies for parent fuze identification during the inspection.
- d. Visually inspect the fuze and components for cracks, damage, rust and explosive residue.

**2.12.1.2. S&A Inspections.** Upon disassembly of the fuzes, verify the rotor is in the safe position and all locks are in place. Conduct spin testing to verify that the arming time meets the requirements of the S&A specification that will be developed during the first phase of the contract. The spin tests shall be conducted with a government approved test set, government approved test procedure and trained personnel.

**2.12.1.3. Electronic Function Test.** Electronic function testing is required for all breakdown fuzes. Electronic testing shall verify proper operation of fuze after environmental testing. The fuze electrical function tests shall be conducted with a government approved test set, government approved test procedure and trained personnel.

**3. Product Marking.** Fuzes shall bear the EX and MOD nomenclature, serial number, and contract number. These markings shall be on the fuze body and visible when installed onto projectile. Mark with laser or equivalent permanent method in .12 inch high characters. Each production fuze shall bear the MK and MOD nomenclature of the fuze, the lot date code in accordance with MIL-STD-1168, and the appropriate ADL number.

#### **4. Production Option.**

##### **4.1. LAT - Breakdown & Function (Detail Strip) Inspection.**

Post environmental fuzes and virgin fuzes shall be disassembled in stages to obtain electronic function data, S&A data and hardware conformance data. The requirements



for the fuze are to pass the following Military Standards and test conditions, as depicted in Figure 4.

Thermal shock tested in accordance with MIL-STD-331, Test C7. The fuze shall be tested by itself.

Leak detection tested in accordance with MIL-STD-331, Test C8, (or equivalent) leakage no greater than  $10^{-5}$  standard atmosphere cc/sec. The fuze is to be tested bare.

Jolt tested in accordance with MIL-STD-331, Test A1. The fuze shall be tested in all three axes. For the horizontal position, jolt fuzes with at least one fuze at the 3 o'clock roll orientation and one at the nine o'clock roll orientation, and one at the 12 o'clock roll orientation. Test shall be conducted at ambient temperature. After jolt, the fuze shall be safe for transportation, storage, handling and safe for use as determined by breakdown inspection.

Transportation vibration [bare fuze] tested in accordance with MIL-STD-331, Test B1. The fuze shall be installed on an inert blind loaded and plugged 5" round, loaded in a properly strapped pallet.

**4.1 Inspection Plan.** - Fuze components shall be inspected in accordance with the inspection plan as agreed to by the fuze IPT. As a minimum requirement, the inspection plan shall consider verification of all Critical characteristics and selected Major and Minor (annotated or unannotated) characteristics as identified in the Technical Documentation Package (TDP). In general the Major and Minor characteristics selected for inspection shall be those, which by experience has shown to directly affect fuze performance. However, the test activity has the option to inspect all other characteristics. Lot Acceptance Accept/Reject criteria for the Breakdown and Function Inspection shall be determined by the IPT as part of the Inspection Plan.

**4.1.1. Procedures.** The test activity shall follow an approved standard operating procedure, which shall consider at a minimum the following procedures:

- a. Label all inspection data for each fuze so that traceability is maintained through the entire test sequence, record all defects and non-conformances and forward the data collected to the Fuze in-service agent and the Fuze design agent for analysis.
- b. Disassemble each fuze to the major subassembly or individual component level for this inspection. During disassembly extreme care shall be used so as not to introduce foreign materials or otherwise disturb the inspected item.
- c. Label and/or containerize all disassembled fuze parts and assemblies for parent fuze identification during the inspection.
- d. Visually inspect the fuze and components for cracks, damage, rust and explosive residue.

**4.1.2. S&A Inspections.**

- a. Upon disassembly of the fuzes, verify the rotor is in the safe position and that all required parts are present and in conformance to the TDP

#### **4.1.3. Electronic Function Test.**

- a. Electronic function testing is required for all delivered fuzes. The fuze electrical function tests shall be conducted with a government-approved test set, government approved test procedure and trained personnel.

**4.2. Gun launch Operational Tests.** All requirements for survival of the gun launch environments shall be verified via gunfire tests. Unless otherwise specified, the following conditions and procedures shall be implemented:

- a. Any fuze that functions in-bore or before minimum arming distance during gunfire testing shall be scored a critical failure.
- b. If a fuze fails to set at the required temperature after three attempts with a properly operating MK34 fuze setter, that fuze shall be scored a failure.
- c. Figure 4 specifies the number of rounds for each test. Accept/Reject criteria for the gun firings shall be determined by the IPT and incorporated into the EX 437 MOD 0 Specification prior to CDR. The reliability requirements of the M782 for each mode of operation shall be maintained.
- d. Rounds shall be fired from either a 5"/54 caliber gun with a new barrel (as measured at the bore, 5.000-5.090 inches) using a MK 67 service propellant charge, or from a 5"/62 caliber gun with a new barrel (as measured at the bore). The round, with fuze installed, shall be temperature conditioned, at the temperature specified in the test plan, for a minimum of 4 hours.
- e. The fuze shall be set using either a MK 34 MOD 1 electronic fuze setter or a government approved equivalent.

**4.3. Transportability.** When mated to a projectile the fuze shall be safe to be transported by military vehicles and supply ships that transport ammunition. When packaged in ammunition containers the fuze shall comply with Title 49 of the Code of Federal Regulations for transport by normal supply channels.

**4.4. Toxic chemicals, hazardous substances, and ozone depleting chemicals (ODC).** Any toxic chemicals, hazardous substances and ODCs not typically used in fuze design require additional approval. Any of these materials used in GFM hardware and identified in the government-furnished baseline are approved.

#### **5. General information.**

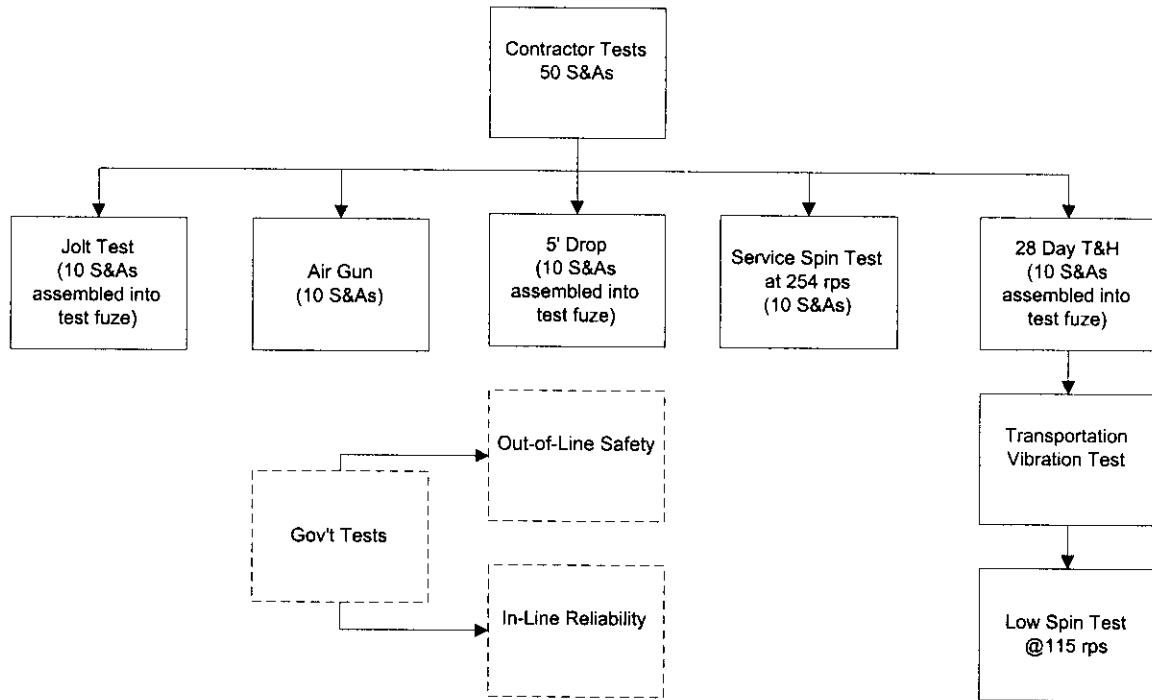
NOTES (This section contains information of a general or explanatory nature that may be helpful)

### **5.1. Definitions.**

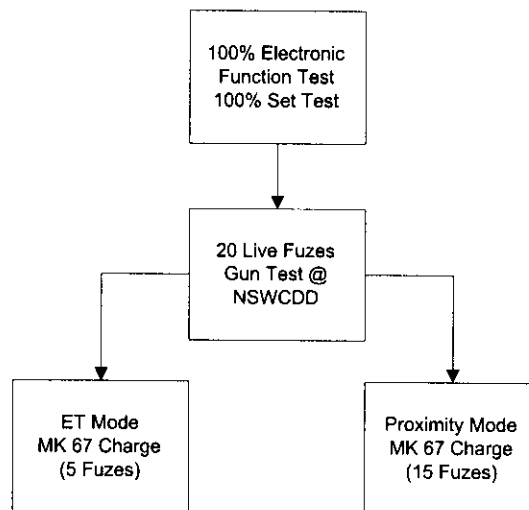
- a. Armed. Any position of the interrupter in the Safety and Arming Device that shall allow propagation of the explosive output of the M55 detonator to the explosive lead with a probability equal to or exceeding 0.005 at a confidence level of 95 percent.
- b. Technical Documentation Package (TDP). The drawings and specifications documenting the configuration and assembly required to build the device.
- c. Fuze Time. The time interval between gun firing and the intended fuze function.
- d. Early burst. A fuze that initiates after safe separation and before intended initiation.

**5.2 Gun Launch Environment.** The following provides the best available description of the gun launch environments:

- a. Shock start in 5"/54 caliber gun: 50,000 g for 100 microseconds. Shock start in 5"/62 caliber gun shall be provided.
- b. Setback in guns as follows:
  - (1) 14,000 g for 12 to 14 milliseconds, approximate half sine wave (5"/54 caliber gun service charge).
  - (2) 14,000 g for 5"/62 with MK 67 charge
  - (3) 16,000 g for 5"/62 with EX 175 charge
- c. Balloting shock in gun: a cross-axial shock of approximately 10,000 g for one milliseconds
- d. Loading impact shock: 4,000 g's maximum, velocity change = 25 fps
- e. Spin environment:
  - (1) Maximum angular velocity of 331 revolutions per second in 5"/62 caliber gun
  - (2) Angular acceleration 311,000 radians/second/second approximate sine waves over 14 ms duration. For gun barrels at maximum wear conditions angular accelerations can peak at 2 times normal but with a shorter duration.



**Figure 1. S&A Validation Tests**



**Figure 2. DT1 Gun Firing**

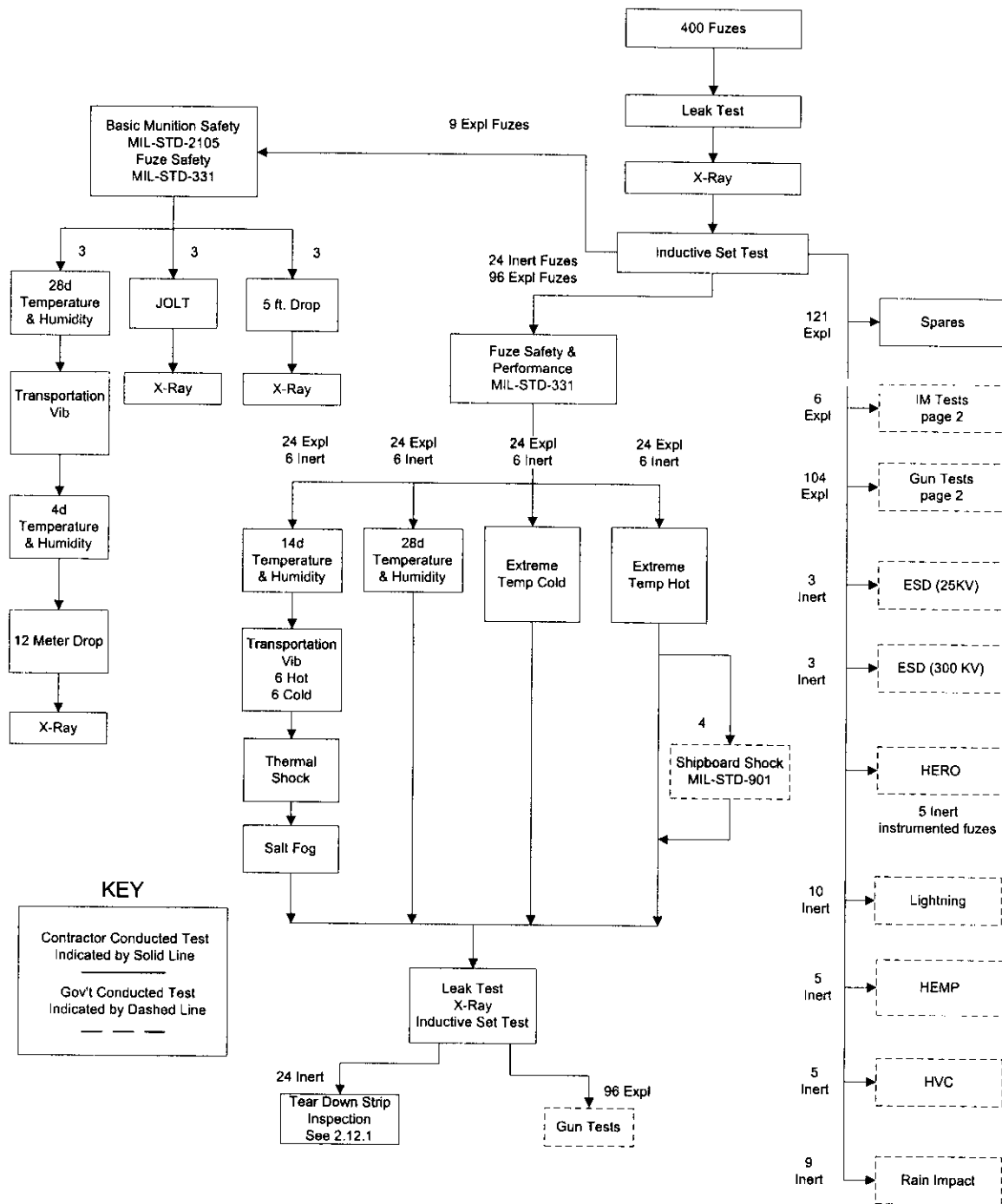
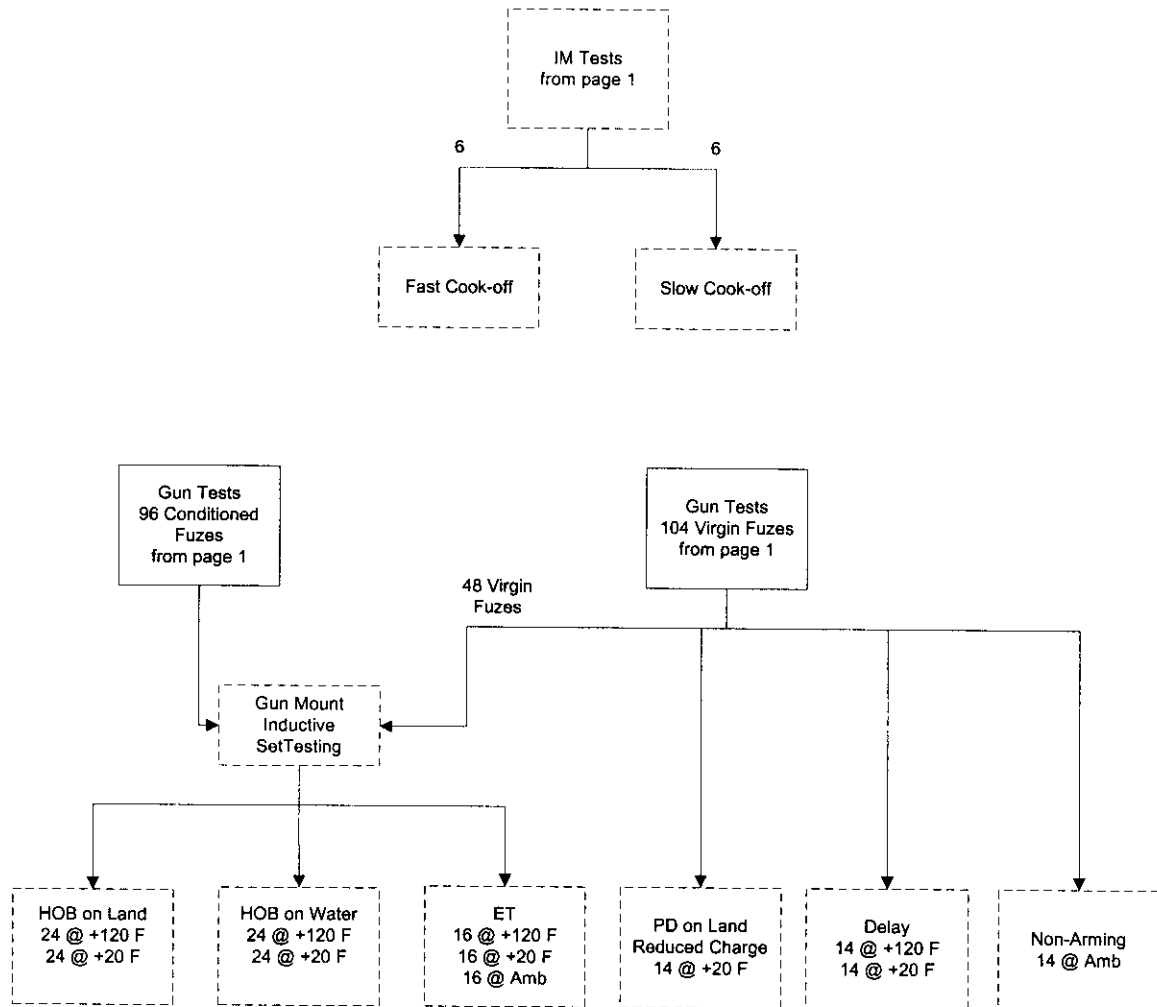
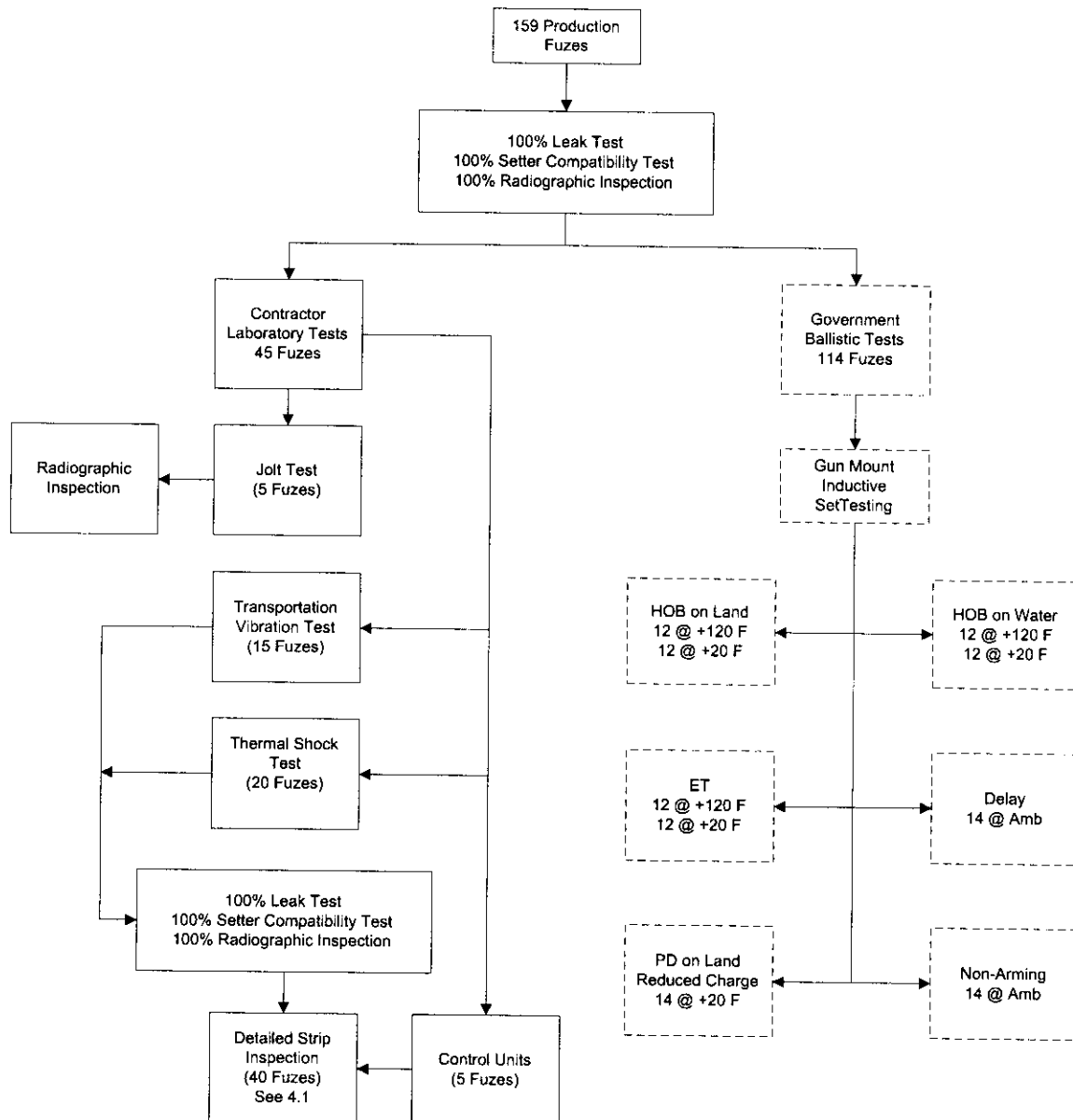


Figure 3. EX 437 Qualification Test Plan (1 of 2)



**Figure 3. EX 437 Qualification Test Plan (2 of 2)**



**Figure 4. MK 437 Lot Acceptance Test Plan**

## APPENDIX A

### INDUCTIVE SETTER INTERFACE DESCRIPTION

#### 10. SCOPE

10.1 Scope. - This appendix contains the interface descriptions between the EX 437 MOD 0 Multi-Option Fuze and the Mark 34 Mod 1 Fuze Setter. This appendix is a mandatory part of the specification. The information contained herein is intended for compliance.

#### 20. APPLICABLE DOCUMENTS

##### 20.1 Government documents.

20.1.1 Other Government documents, drawings, and publications. - The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

#### OTHER GOVERNMENT DOCUMENTS

##### NAVAL SEA SYSTEMS COMMAND

WS 24432

Interface Specification Fuze Setter,  
MK 34 Mod 0 to Projectile, Guided,  
5 inch MK 105 Mod 0

#### DRAWINGS

##### NAVAL SEA SYSTEMS COMMAND

DWG 5489209

Cover, End

DWG 5525660

MK 34 MOD 1 Fuze Setter Assembly

(Unless otherwise indicated, copies of drawings required by suppliers in connection with specific procurement functions should be obtained from the contracting activity or as directed by the contracting officer.)

#### 30. SETTING INTERFACE REQUIREMENTS

##### 30.1 General functional descriptions. -

30.1.1 Fuze setter (FS) functional description. The MK 34 MOD 1 FS (see DWG. 5525660) has been developed to inductively set magnetically programmable fuzes and to provide this function for the 5"/54 caliber MK 45 MODs 1 and 2, and 5"/62 MK 45 MOD 4 Gun Mounts. The FS accomplishes fuze setting through the use of a resonating magnetic field which it generates and uses to induce power and a digital fuze data word into the fuze. The FS (see Figure A-1) consists of four functional assemblies: a setter unit; a setter coil; a cable assembly; and a ground strap. The setter unit provides system electronics and communicates with and is controlled by the MK 45's EP2 control panel. The setter coil and cable assembly form a series tuned resonant circuit that, when excited by the setter unit, produces the resonating magnetic field necessary for fuze setting. The ground strap provides FS grounding to ship's structure.



30.1.2 MK 45 Gun Mount functional description. - The MK 45 Gun Mount consists of a 5" single barrel mount, an EP1 power panel, and an EP2 control panel. The gun mount, via the EP2, receives the digital data word from the Gun Fire Control System (GFCS) over a serial data link; communicates with and controls the FS; and provides the fuze setting status to the GFCS. This information flow and the FS control provides the Gun Weapon System (GWS) the means to set inductive fuzes within the gun mount.

30.1.3 Fuze setting overview. - When a fuze is to engage a target, a 26-bit data word shall be set into the fuze memory prior to projectile firing. This data can originate from the GFCS or from the MK 45's EP2 control panel (remote and local mode respectively). Under remote operation, the data is generated by the GFCS computer, converted into a serial format, and sent to the EP2 over a serial data link. Upon receipt of the data, the EP2 signals the setter unit to excite the setter coil. This results in a 100 kilohertz (KHz) resonating magnetic field emanating from the setter coil which couples with the adjacent fuze receiver coil (see note below). After a short delay period to power-up the fuze, the EP2 pulse-width encodes the data and sends it to the setter unit. The setter unit, in turn, uses the pulse-width encoded data to modulate the 100 KHz carrier signal appearing across the setter coil. The resulting modulated magnetic field thus induces the data word into the fuze where it is stored for use by the projectile after gun-launch.

Note: When placed adjacent to each other, the setter coil and fuze receiver coil effectively form a transformer with the setter coil acting as the primary and the receiver coil, the secondary.

At the conclusion of data transmission, the setter coil reverts to the continuous 100 KHz resonating mode. Shortly after data transmission, the fuze responds by shorting and unshorting the fuze receiver coil in a manner based on the data it received. This causes small phase shifts in the 100 KHz carrier. The perturbations are detected, amplified and decoded by the setter unit which formats the "repeatback" data and sends it to the EP2 where it is compared to the original GFCS data. If the repeatback data matches the original data, a "fuze set" condition is declared and is displayed at the EP2 and sent to the GFCS via the serial data link.

The sequence of events between the end of the power-up period and set is repeated (if required) until all gun firing interlocks are satisfied and the GFCS has issued a fire order to the gun. If a set condition exists and all interlocks are satisfied in the presence of a fire order, the sequence is halted and the projectile is loaded and fired. If the repeatback data does not match the original data, a fault condition is set. In the MK 45 MOD 1 gun, if three consecutive faults occur, a "no-go" condition is declared and the round cannot be fired. In the MK 45 MODs 2 and 4, the "no-go" condition is declared after only 2 consecutive faults.

In the local setting mode of operation (GFCS or serial data link casualty conditions), the fuze setting is the same as in the remote, except the data word is generated at the EP2.

## 30.2 Detail description of the setter interface. -

30.2.1 Forward data. The data bit allocation and function within the forward data shall be as specified in Table I.

30.2.2 Communications. The communication control and conventions used for transmitting data between the FS and the fuze shall be as shown in the following subparagraphs. This includes data rates and timing and signal characteristics that shall be used in this interface. For the purpose of this specification, the fuze setting process shall be considered controlled by the FS.

30.2.2.1 Communication control. - Communication between the FS and the fuze shall always be started and stopped by the FS. Communication shall occur using the 100 KHz resonating magnetic field produced by the setter coil as the communication medium - the MAG LINK. Data transmission across this link shall be accomplished by modulating the 100 kHz carrier that appears across the setter coil and which is induced into the fuze receiver coil via the MAG LINK. Forward data transmission shall be accomplished using carrier interruption as the modulation technique. Reverse data transfer shall be accomplished by carrier phase and amplitude modulation. For each forward data zero (0) or one (1), the FS shall interrupt

the carrier to induce each bit into the fuze receiver coil. These interruption periods for forward data zero and one shall be as specified in 30.2.2.4. For each reverse data zero or one, the fuze shall repeatedly short and unshort the fuze receiver coil to effect phase and amplitude changes in the carrier. These shorting and unshorting periods for reverse data zero and one shall be as specified in 30.2.2.5.

30.2.2.2 Communication conventions. - Communication between the FS and the fuze shall always be initiated by the FS. Communication shall begin with the power-up period and shall continue as specified herein until stopped by the FS. The fuze shall never initiate the transmission of data or send data to the FS unless the fuze has received all 26 forward data bits.

Figure A-2 is the timing diagram for this interface. Communication begins at  $t_0$ . At  $t_0$  the FS shall excite the setter coil to produce the MAG LINK. The period between  $t_0$  and  $t_1$  define the Power-Up Period (PUP). Between  $t_1$  and  $t_2$  forward data shall be transmitted in accordance with the format specified in Table I and the requirements of 30.2.2.4. Forward data bit B0 (the start bit) shall be the first bit transmitted followed in succession by the data bit B1 to B24. B25 (the stop bit) shall be the last bit transmitted. The period between  $t_1$  and  $t_2$  defines the Forward Data Period (FDP).

After forward data bit B25 has been transmitted, the fuze shall delay a minimum of 4 milliseconds (ms) ( $t_2$  and  $t_3$ ) before initiating reverse data transmission. Reverse data shall be transmitted between  $t_3$  and  $t_4$  in accordance with 30.2.2.5. Reverse data shall consist of the forward data bits B1 to B25. Forward data bit B0 shall not be sent back to the FS. Reverse data bit B1 shall be the first bit transmitted followed in succession by bits B2 to B25. The period between  $t_3$  and  $t_4$  defines the Reverse Data Period (RDP).

The delay period between  $t_4$  and  $t_5$ , the fuze Delay Period (DP), shall be used by the fuze to get ready for the next forward data transmission if the fuze has to be reset. This 15 to 20 ms delay period is control by the EP2 panel, therefore, after sending the RDP, the fuze must be ready to receive the next FDP within 15 ms. The period between  $t_1$  and  $t_5$  is defined as the Set Period (SP). This period shall always be repeated within 63 ms of  $t_5$  until the fuze has been committed for firing. Once committed, the FS shall stop communication with the fuze by turning off the MAG LINK at  $t_6$  otherwise the MAG LINK shall be kept on for the next SP beginning at  $t_7$ . Table A-I summarizes the communication conventions for this interface.

TABLE A-I. Communication characteristics.

CHARACTERISTICS	VALUE
Carrier frequency	100 KHz $\pm$ 500 Hz
Power-up period (PUP)	500 +63/-0 ms continuous carrier
Forward data period (FDP)	26,000 $\pm$ 0.260 ms
Reverse data period (RDP)	179.90 $\pm$ 28.40 ms
Delay between FDP and RDP	4 ms minimum
Fuze delay period (fuze DP)	15 –20 ms (See Note 1)
Set period (SP)	275 ms maximum
Time between consecutive set periods	0 to 63 ms

Note 1: The DP is controlled by the gun system. After sending the RDP, the fuze must be ready to receive the next FDP within 15 ms .

30.2.2.3 Power-up period (PUP). - The power-up period shall be characterized by the carrier as a continuous carrier for a period of 500 (+63 or - 0) ms. This period shall occur once and prior to forward data transmission. After the first forward data transmission, the PUP shall be dropped from succeeding forward data transmissions to the same fuze.

30.2.2.4 Forward data transmission. - The FS shall transmit forward data across the MAG LINK at 1 kHz  $\pm$  10 Hz rate by interrupting the carrier as follows (see Figure A-3):

30.2.2.4.1 Forward data zero (0), carrier control. A forward data zero shall be transmitted by interrupting the carrier for 250  $\pm$  5 microseconds (us) followed by 750  $\pm$  5 us of continuous carrier. The summation of these two periods defines the data bit's binary value "0".

30.2.2.4.2 Forward data zero (0), carrier response. The response of the carrier to the carrier control signal for forward data zero shall conform to the corresponding 100 kHz carrier response waveform as shown in Figure A-3 and the requirements of 30.2.2.4.5.

30.2.2.4.3 Forward data one (1), carrier control. A forward data one shall be transmitted by interrupting the carrier for 500  $\pm$  5 us followed by 500  $\pm$  5 us of continuous carrier. The summation of these two periods defines the data bit's binary value "1".

30.2.2.4.4 Forward data one (1), carrier response. The response of the carrier to the carrier control signal for forward data one shall conform to the corresponding 100 kHz carrier response waveform as shown in Figure A-3 and the requirements of 30.2.2.4.5.

30.2.2.4.5 Carrier rise and fall time. - The rise and fall time of the carrier during forward data transmission shall be within the following limits (see Figure A-4):

Carrier Rise Time ( $T_{CR}$ ): 0 to 70 us from the 10% to the 90% level of the carrier voltage as measured at the setter coil.

Carrier Fall Time ( $T_{CF}$ ): 0 to 20 us from the 90% to the 10% level of the carrier voltage as measured at the setter coil.

30.2.2.4.6 Forward data characteristics. - Table A-II summarizes the forward data transmission characteristics.

TABLE A-II. Forward data transmission characteristics.

CHARACTERISTICS	VALUE
Forward data rate	1 KHz $\pm$ 10 Hz
Forward data zero (0): 100 KHz carrier control signal	250 $\pm$ 5 us carrier OFF period followed by a 750 $\pm$ 5 us carrier ON period <u>1/</u>
Forward data one (1): 100 KHz carrier control signal	500 $\pm$ 5 us carrier OFF period followed by a 500 $\pm$ 5 us carrier ON period <u>1/</u>
Carrier rise time	0 to 70 us from the 10% to the 90% level of V <u>2/</u>
Carrier fall time	0 to 20 us from the 90% to the 10% level of V <u>2/</u>

Note: 1/ Measure at setter unit connector J2, pin j as shown in Figure A-3.

2/ Measured at setter coil, pin E5 as shown in Figures A-3 and A-4.

30.2.2.5 Reverse data transmission. - The FS shall transmit reverse data across the MAG LINK using phase and amplitude modulation on the carrier. This modulation shall be effected by shorting and unshorting the fuze receiver coil. The period of time for one shorting and unshorting sequence defines one shorting cycle,  $T_{SC}$ . The reciprocal of  $T_{SC}$  is the shorting frequency in hertz. The number of shorting cycles followed by a period of nonshorting shall represent the binary value of the reverse data bit zero (0) or one (1). The length of time to represent either a zero or one shall be the same irrespective of the data bit's binary value. This length of time defines the bit period,  $T_{BP}$ . The reciprocal of  $T_{BP}$  is the reverse data rate in hertz.

30.2.2.5.1 Reverse data zero (0). - A reverse data zero shall be characterized by 8 shorting cycles (8  $T_{SC}$ ) followed by a period of nonshorting equal to 24 shorting cycles (24  $T_{SC}$ ). The minimum time for the 8 shorting cycle period and the period of nonshorting shall be 1.515 ms and 4.545 ms respectively. The maximum time shall be 2.083 ms and 6.250 ms. Any combination of the minimum and maximum times is permissible but the bit period ( $T_{BP}$ ) shall always be greater than or equal to 6.060 ms and less than or equal to 8.334 ms. Figure A-5 defines reverse data zero in terms of the carrier and the shorting cycle.

30.2.2.5.2 Reverse data one (1). - A reverse data one shall be characterized by 16 shorting cycles (16  $T_{SC}$ ) followed by a period of nonshorting equal to 16 shorting cycles (16  $T_{SC}$ ). The minimum time for the 16 shorting cycle period and the period of nonshorting shall be 3.030 ms. The maximum time shall be 4.167 ms each. Any combination of the minimum and maximum times is permissible but the bit period ( $T_{BP}$ ) shall always be greater than or equal to 6.060 ms and less than or equal to 8.334 ms. Figure A-5 defines reverse data one in terms of the carrier and the shorting cycle. The reverse data rate is 130.21 Hz with a  $T_{BP}$  equal to 7.680 ms. Table A-III summarizes the reverse data characteristics.

TABLE A-III. Reverse data transmission characteristics.

CHARACTERISTICS	VALUE
Bit period ( $T_{BP}$ )	8.334 to 6.060 ms

Reverse data rate ( $1/T_{BP}$ )	120 to 165 Hz
Shorting cycle ( $T_{SC}$ )	189.4 to 260.4 us (50 $\pm$ 2% duty cycle at the shorting frequency)
Shorting frequency ( $1/T_{SC}$ )	3840 to 5280 Hz
Reverse data zero (0)	A quarter bit period of 8 shorting cycles ( $8 T_{SC}$ ) at the shorting frequency followed by a three-quarter bit period ( $24 T_{SC}$ ) of no shorting
Reverse data one (1)	A half bit period of 16 shorting cycles ( $16 T_{SC}$ ) at the shorting frequency followed by a half bit period of no shorting

30.2.3 FS forward power. - The power of the MAG LINK to induce power into the standard receiver coil and circuit defines FS forward power. The magnitude of this power is given by the product of the induced dc voltage and current with respect to the distance between the setter coil and standard coil, and with the setter coil emitting a continuous 100 kHz resonating magnetic field. The FS shall be tested to determine compliance with the forward power requirements using the test setup shown in Figure A-6 whose operation is explained in Figure A-7. Figure A-8 shows the schematic of the test circuit used to derive the induced DC voltage and current. Further information on this test setup and additional test measurements can be found in WS 24432.

30.2.3.1 FS forward power distribution. - The MK 45 gun mount loader drum has a capacity for up to 20 projectiles. The 100 kHz resonating magnetic field extends beyond the fuze immediately under the fuze setter at the transfer station. Fuzes in cells other than the transfer station shall not be adversely affected by the magnetic field, or induce sufficient power to send a RDP to the fuze setter.

30.2.3.2 Fuze maximum power requirement. - The maximum power required by the fuze shall always be less than the values specified in Table A-IV when the nose of the fuze is positioned 1-inch from the setter coil.

Table A-IV. FS forward power.

SEPARATION DISTANCE (INCHES) <u>1/</u>	MINIMUM FORWARD POWER (mW) <u>2/</u>
0.5	103
1.0	103
1.5	91
2.0	75
2.5	60
3.0	47
3.5	38
4.0	30
4.5	24
5.0	19

Note: 1/ Distance between the face of the setter coil and the face of the standard receiver coil.

2/ As measured within the MK 45 MOD 1 gun mount at the setting position.

#### 40. DEFINITIONS

40.1 Forward data. - Refers to the 26-bit data word transmitted to the fuze from the MK 34 FS.

40.2 Reverse data. - Refers to the repeatback data word transmitted to the MK 34 FS from the fuze.

40.3 MAG LINK. - The 100 kHz resonating magnetic field that is emitted from the MK 34 FS setter coil.

40.4 Carrier. - The 100 kHz sinusoid that appears across the MK 34 FS setter coil as the result of exciting the coil at 100 kHz.

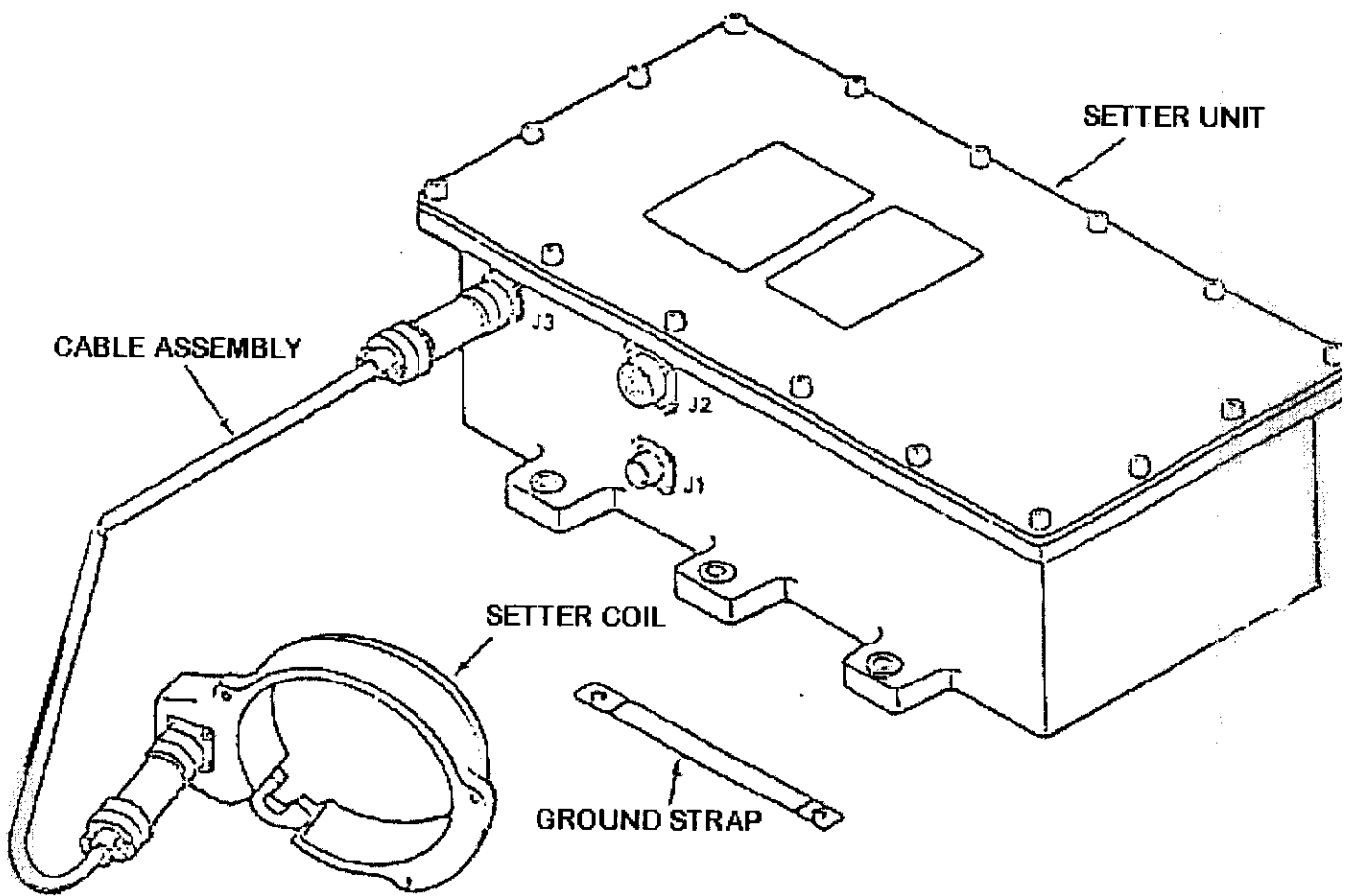


FIGURE A-1. MK 34 Mod 0 Inductive Fuze Setter.

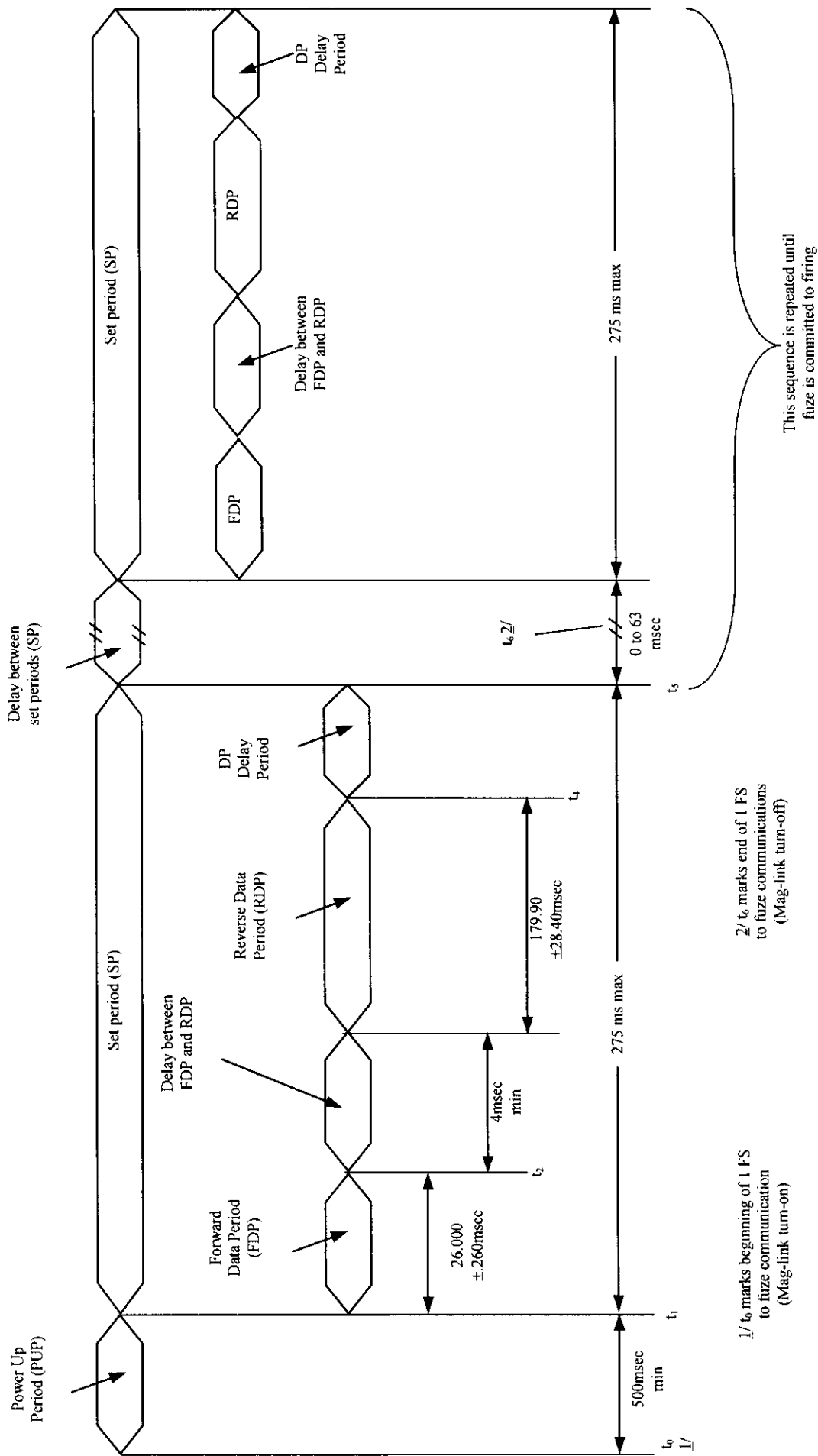


Figure A-2. Interface Timing Diagram



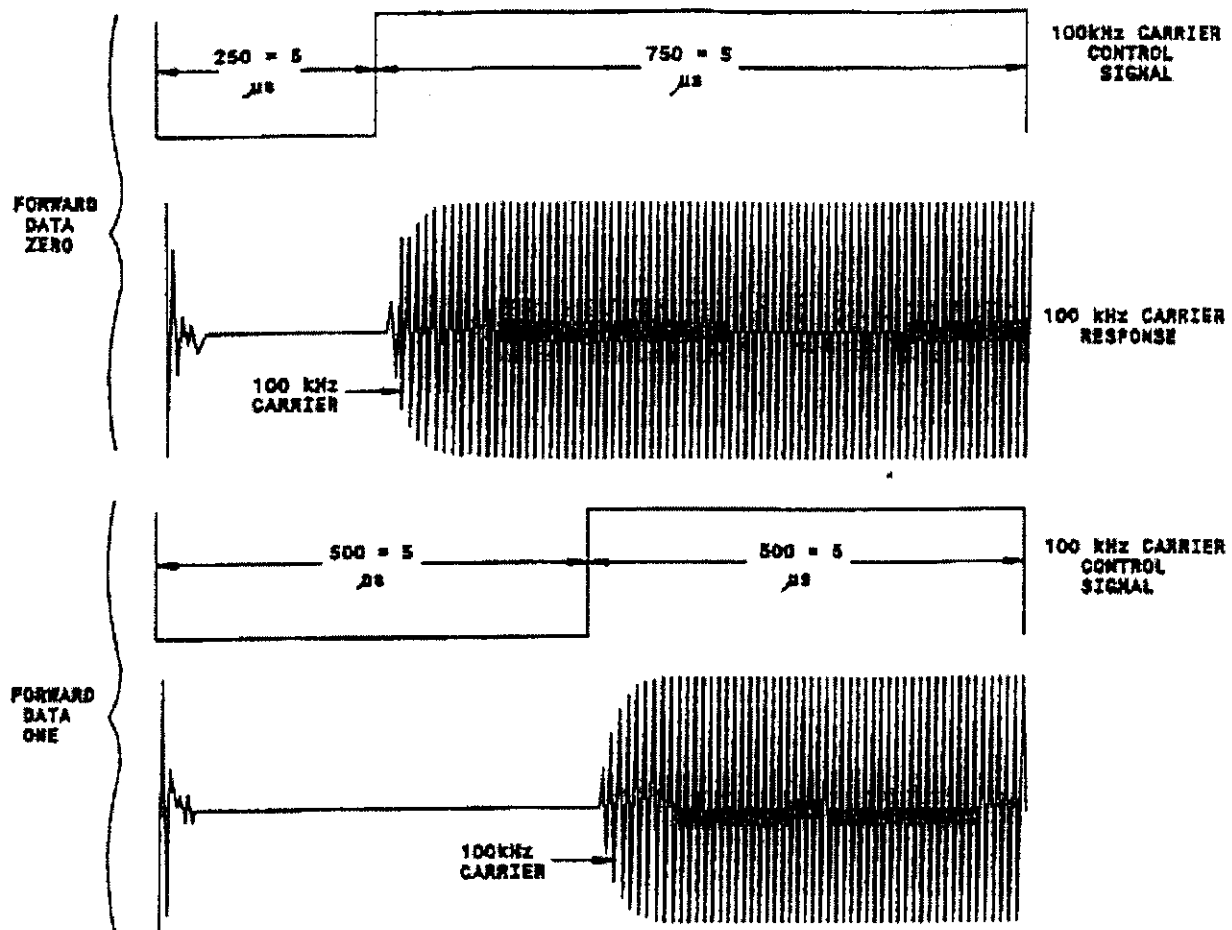
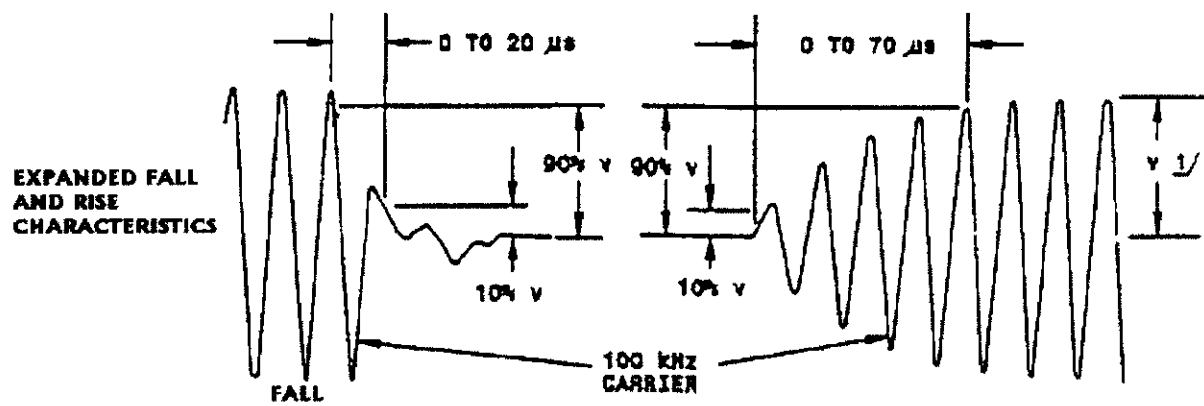


FIGURE A-3. Forward data, 100 KHz carrier characteristics



1/ AS MEASURED AT SETTER COIL, PIN E5

FIGURE A-4. 100KHz carrier fall and rise characteristics.

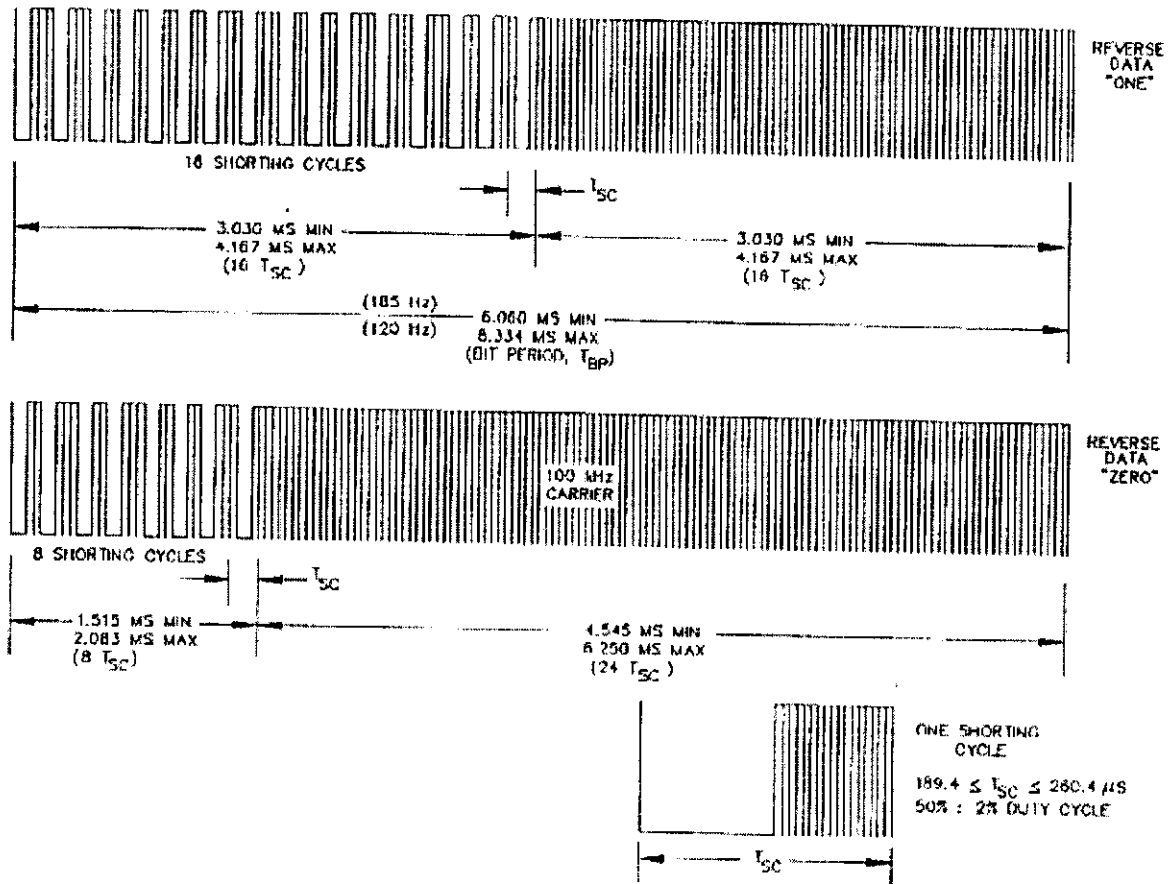


FIGURE A-5. Reverse data, 100KHz carrier characteristics.

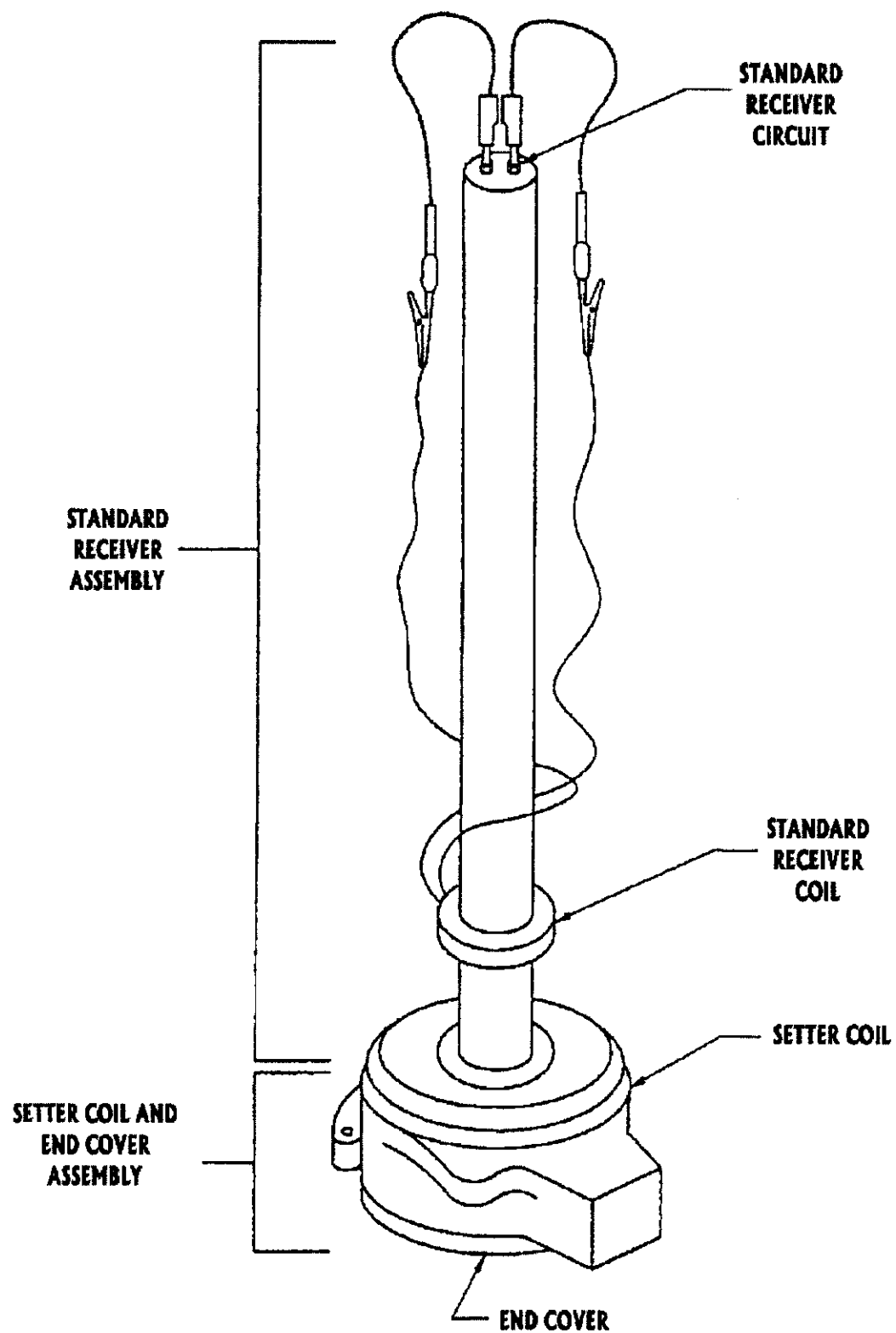
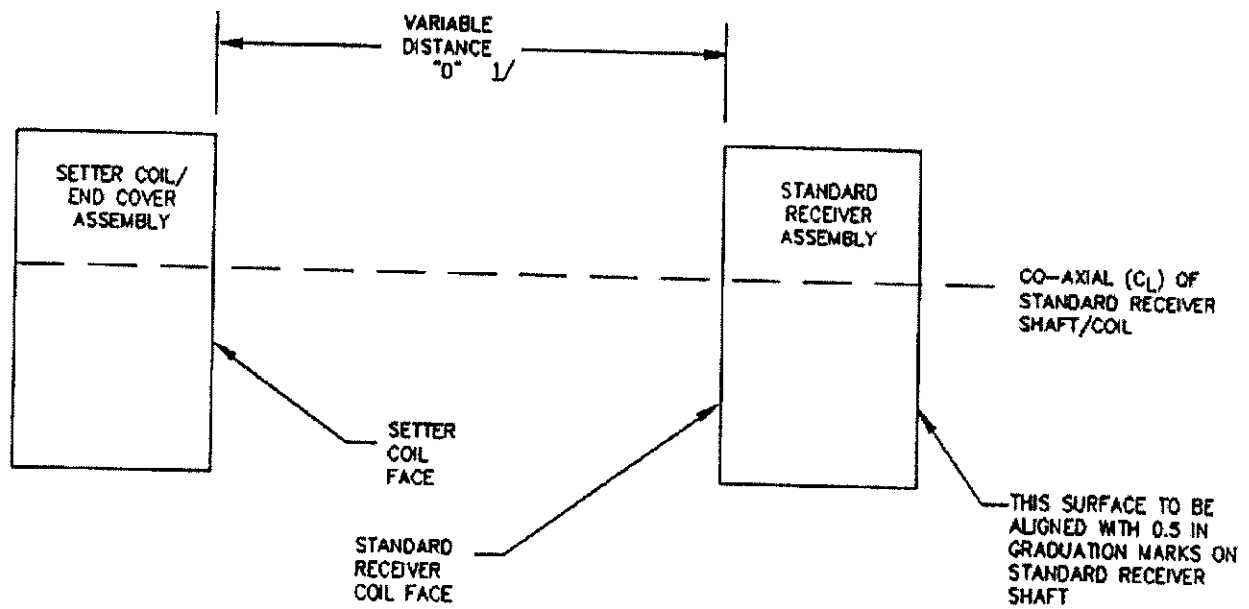


FIGURE A-6. Standard receiver assembly on setter coil/end cover assembly.



1/  
 DISTANCE "D" IS VARIED BY MOVING THE STANDARD COIL UP OR DOWN THE RECEIVER SHAFT. COIL-TO-COIL SEPARATION OF 0.5 INCH OCCURS WHEN THE COIL IS SLID ALL THE WAY DOWN THE SHAFT. MOVING THE COIL UP OR DOWN ONE SHAFT GRADUATION MARK AT A TIME INCREASES OR DECREASES THE DISTANCE "D" BY 0.5 INCH.

FIGURE A-7. Setter coil to standard receiver coil distance.

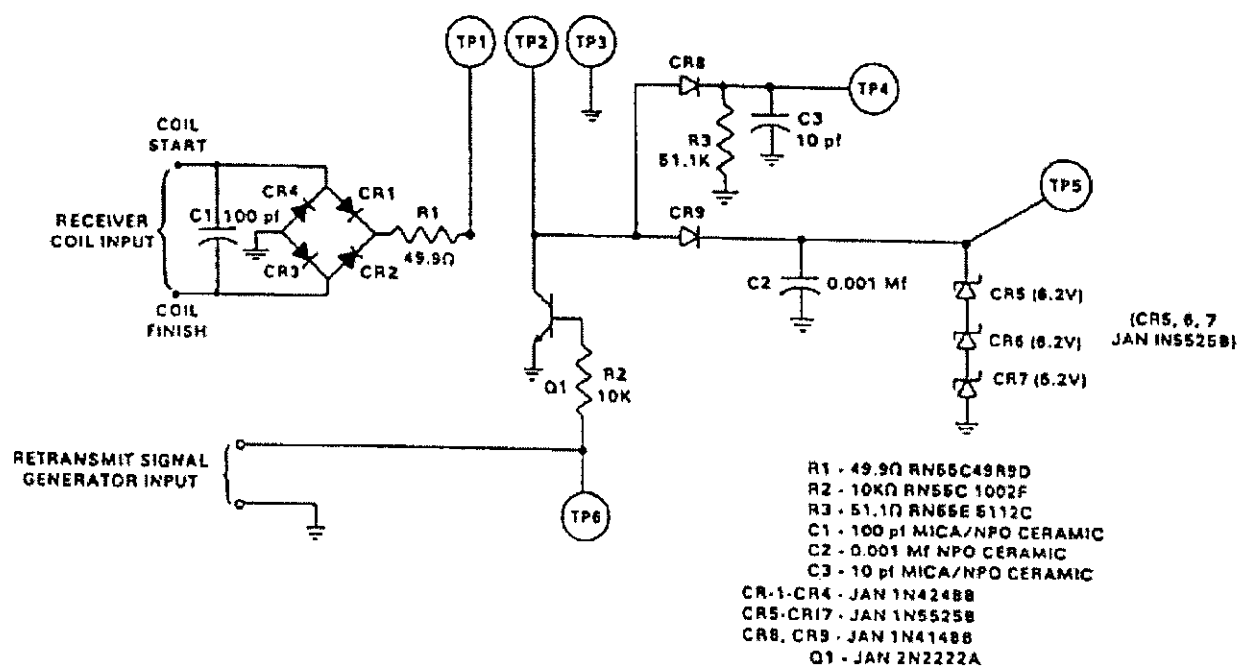


FIGURE A-8. FS standard receiver circuit diagram.



DEPARTMENT OF THE NAVY  
NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION  
17320 DAHLGREN ROAD  
DAHLGREN, VA 22485-5100

SOURCE SELECTION PAST PERFORMANCE EVALUATION  
FOR  
REQUEST FOR PROPOSAL N00178-03-R-3065

Date\_\_\_\_\_

NAME\_\_\_\_\_ TITLE\_\_\_\_\_ TEL\_\_\_\_\_

CONTRACTOR\_\_\_\_\_

CONTRACT NUMBER\_\_\_\_\_ ITEM NOMENCLATURE\_\_\_\_\_

In connection with this contractor's performance, please provide comments and a general rating on the attached Performance Information Request. Handwritten responses and remarks are acceptable

Certify the information provided, by signature and fax to the undersigned at (540) 653-6810. For further clarification, please contact the undersigned at (540) 653-7094.

Thank You in Advance

(Signed)

G. R. Vaughan  
Contracting Officer

ATTACHMENT (78)



**SOURCE SELECTION PAST PERFORMANCE EVALUATION  
FOR REQUEST FOR PROPOSAL N00178-03-R-3065**

Contractor	
Contract Number	
Contract Type (ex: Cost Plus Fixed Fee)	
Nature of Effort	
Period of Performance	
Original Contract Value	
Final or Current Contract Value	

For the questions listed below, please choose the number on the scale of 1 to 5 which most accurately describes the contractor's performance on the contract listed above. A "5" represents superior performance and a "1" represents unacceptable performance. If the question is not applicable, circle "N/A". Please add any comments and information that may help to determine the contractor's probably performance.

1. Evaluate the contractor's compliance with the contractual terms and conditions. 1 2 3 4 5 N/A
2. Evaluate the contractor's adherence to task schedules and mission statements. 1 2 3 4 5 N/A
3. How well did the contractor demonstrate the ability to overcome program, technical, and schedule difficulties? 1 2 3 4 5 N/A
4. Evaluate the contractor's responsiveness to technical direction. 1 2 3 4 5 N/A
5. Evaluate the contractor's technical judgment as demonstrated by the quality of their design reviews. 1 2 3 4 5 N/A

6.	Evaluate the contractor's ability to solve business management problems without extensive guidance from the procuring activity counterpart.	1	2	3	4	5	N/A
7.	How responsive and reasonable was the contractor with regard to negotiating changes and modifications?	1	2	3	4	5	N/A
8.	Evaluate the contractor's labor force in terms of overall qualification to perform the work required.	1	2	3	4	5	N/A
9.	Evaluate the contractor's willingness and ability to integrate with other contractors.	1	2	3	4	5	N/A
10.	Evaluate the stability of the contractor's work force.	1	2	3	4	5	N/A
11.	How well did the contractor exercise management control over his own personnel?	1	2	3	4	5	N/A
12.	If the contractor used subcontractors, how well did the contractor exercise management control over the subcontractors?	1	2	3	4	5	NA
13.	Evaluate the contractor's work control procedures?	1	2	3	4	5	NA
14.	Evaluate the contractor's cost reporting and estimating system.	1	2	3	4	5	NA
15.	Evaluate the responsiveness and quality of contractor reports and documentation.	1	2	3	4	5	NA
16.	Evaluate the contractor's development and utilization of Key Personnel.	1	2	3	4	5	NA
17.	Have there been any terminations of tasks due to inability to meet technical requirements, delivery schedule, or cost predictions?	Y					N

18. Would you award similar contracts to the contractor in the future? Y N
19. What role did you play? (COR, Contracting Officer, Engineer, etc.)
20. How Long (question 19)?
21. Name and phone number of the Contracting Officer's Representative:
22. Name and phone number of the Technical Person who handled this Contract:
23. Name and phone number of the Administrative Contracting Officer:
24. Other pertinent comments not covered above:

\_\_\_\_\_  
Name (Printed)/Phone

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date